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LECTURES
ON
COMPARATIVE ANATOMY
AND
ANIMAL PHYSIOLOGY,

DELIVERED BY

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LECTURE VII.

ON THE ORGANS OF SUPPORT OF THE HELMINTHOID CLASSES OF ARTICULATED ANIMALS.

We come now to consider the skeleton of the second grand division of the animal kingdom, comprehending all the *articulated* classes, from the simplest intestinal worms to the most complicated of the crustaceous animals. The body of these animals has almost always a lengthened form, divided by transverse constrictions into numerous moveable rings or segments, and the skeleton is disposed in the form of tubular rings or sheaths over the whole surface of the trunk and extremities. In many of the classes of this division there are no articulated extremities for progressive motion, although the body presents a distinct articulated character. This is the case, for instance, with these various intestinal and red-blooded worms, and with the small rotiferous animals, and with these cirrhopods fixed in their shells, which so much resemble entomostraceous crustaceous animals. The higher classes of this division, however, are provided with articulated members for progressive motion developed from the sides of the segments. This you perceive to be the case with these scolopendræ and other myriapods, and with the insects, the arachnida, and all the crustaceous animals. Notwithstanding the diversity of outward form in the animals belonging to these numerous classes, the plan of their organization is remarkably uniform, and can be traced through all the helminthoid classes, as well as through those which have articulated organs of motion. In beginning the study of these articulated forms of the skeleton with the lowest of the helminthoid classes, we are led back to organizations much simpler than many we have already seen. This simple hydatid, and most of these entozoa, have a much less complex organization than the echinoderma we were last examining. This is an inconvenience inseparable from all classifications founded on organization, or on any other scientific principles. We are commencing a type of organization to which we have been gradually led, and which is common to an immense division of the animal kingdom, leading us to much more complex structures than any we have considered, and yet inferior to the highest of the molluscous classes. We may suppose a metamorphosis of the nervous system of the *radiated* classes into that of the *articulata*, by the contraction of the nervous circle of the former and the extension of two of its radiating filaments along the lower part of the body, where we can distinguish the sensorial from the motor nerves. From animals with the axis of the body raised perpendicularly upwards from the mouth, we come to those which have the axis lengthened and placed horizontally—the best adapted for creeping on a solid surface, and for being insinuated into small passages. Most of them have a predaceous and parasitic character, from the entozoa to the crustacea.

Where the superficial skeleton of these animals is soft and yielding, the appearance of segments and articulations is

faint or even wanting, but where it is more solid it is necessarily jointed in every part where motion is required, and this is applicable to the skeletons of all classes of animals. If we ove-looked this circumstance we might fail to perceive the analogy which exists between the undivided soft skeleton of an *ascaris* (*N*), or *filaria*, and the more firm and divided condition of that part in a *sereis* (Q, p. 351) or myriapod. These dense annular coverings of the soft parts in the articulated classes require to be exuviable in order to allow of the development and growth of the contained organs in every part of the body and its appendices. The skeletons of these classes not being reinforced by successive deposits during the whole of life, as in the molluscous classes, but being only temporary coverings, and the result of one effort of formation, are always thin and light, and the carbonate of lime is seldom employed in their consolidation. Its place is supplied by the more dense *phosphate* of the vetebrata, excepting in the large skeletons of the crustacea, and in the exterior testaceous shields of the cirrhopods and some of the annelides.

The cold, moist, creeping, serpent-like condition of worms, and their resemblance to maggots, so destructive to organic bodies, are apt to excite feelings of repugnance towards their outward forms, and more than indifference towards the study of their internal mechanism. But we should remember that worms form a necessary link in the great chain of organic developments, that they are the steps by which alone we are led to the whole mechanism and economy of insects, whose myriads of forms exceed all the rest of animated nature, and that they are the sole representatives of human organization at that particular stage of its development. The beauty of the forms, the structure, and the colours, of many of them are not exceeded by those of any other animals, and their myriads in the soils of all continents, in the sands of all seas, and in the bodies of all animals and vegetables, render them important in the economy of nature. Worms and insects display as much the hand of the Great Artificer, and are as perfect for their objects, as man himself. In tracing the development of human organs in the great body of the animal kingdom, we must pass through these stages of existence. Fortunately the time is now past, even in this country, for ignorance to sneer at the anatomy of an insect or a worm. To overlook any of the links in the great chain of these comparisons, or to attach insignificance to some particular stage of this general process of development, would betray a gross ignorance of the most interesting and philosophical part of the study of anatomy and physiology as cultivated in our times.

The lowest of the helminthoid classes, the *entozoa*, have scarcely any anatomical character in common; they are grouped together, and have received their name from their being parasitic inhabitants of the bodies of other animals. The softness and tenacity of the medium in which they live, and the motions which take place in the parts of that soft medium, require that the long bodies of the entozoa should not be covered with a hard inflexible shell, but that the skeleton should possess sufficient elasticity and toughness to prevent tearing or compression from the movements of the portions of the living animals in which they reside. Hence their parts, analogous to the more solid skeletons of higher articulated classes, are placed over the exterior of the whole body, and consist of an elastic tunic, smooth, glistening, and unctuous, on the outer surface, in most of the long cylindrical worms, as the *filaria*, *strongylus*, *echinorhynchus*, and *ascaris*. It is to the density of this exterior covering of intestinal worms that they owe the remarkable stiffness and elasticity of their whole body. This tough skin is transparent, almost homogeneous, and of considerable thickness, so that in looking through one of these worms where the two muscular coats are thin, we can easily perceive the form and arrangement of the contained organs. In the lengthened cylindrical forms of these animals, this tunic is much stronger than in any other genera; but we may regard the thinner covering of the jointed *tæniæ* and *bothriocephali*, and the still more fine and dilatable skin of the hydatids and *cœuri* as analogous parts. The interrupted form of the transverse and longitudinal muscular fibres of the two fibrous inner coats, is produced by the numerous insertions of those fibres into the inner surface of this integument; and it is by the contractions of those two sets of fibres, that the surface of those animals is made to assume its transverse corrugations, and its longitudinal striæ. These transverse corrugations of the elastic integument of the filiform *entozoa*, are the first traces of the articulated form of the trunk, which is so marked in the higher classes of this division; and, indeed, this articulated form of the body is already strikingly marked in the *tænia* and other cestoid entozoa. In this magnified view of the *ascaris* (*N* 1), given by Cloquet, you will observe that the whole animal consists of nothing but the trunk; no extremities or lateral cirrhi or setæ, nor any kind of appendices, are yet developed. From the trilobate mouth

(*N* 1, *a*), to the vulva (*N* 1, *d*), the body enlarges, is slightly marked by transverse corrugations, and through the transparent integument of which I have been speaking (*N* 2, *a*), you can perceive the longitudinal abdominal nervous filament (*N* 1, *e*; 2 *h*), which appears single, but when arrived at the vulva it divides, and passes on each side, showing, that throughout its course it was double, as in other articulated classes of animals. This abdominal filament can be traced to near the anus (*N* 1, *b*), at the opposite end of the worm, so that this simple condition of the nervous system, without a ganglion, and consisting of two parallel longitudinal contiguous filaments, is strikingly analogous to the first condition of that important system in the embryo of the highest vertebrated animals, where the two chords of the spinal marrow are known to make their first appearance as a simple streak, along the central transparent part of the cicatricula, which becomes the young embryo. The two sides of the worm are also marked by streaks or lines, one on each side, but these belong to the circulating system, which is here conducted in vessels without any heart or pulsating cavity. The back is also marked by a longitudinal line, which by some is considered to be a nerve, but which is more probably a vessel for the circulating fluid, as in more perfect worms and other articulata. This enlarged transverse section of the body of the ascaris (*N* 2), shows you the relation of the contained parts to the outer enveloping band (*N* 2, *a*). Within this outer circle is seen the section of the two muscular coats (*N* 2, *b*), the outer consisting of transverse fibres, and the inner coat of longitudinal fibres. At four points, equally distant from each other, and almost in contact with the outer covering, are seen the two lateral vessels (*N* 2, *e e*), the abdominal nerve (*N* 2, *h*), and the dorsal line I have just mentioned (*N* 2, *g*). The compressed stomach occupies the middle of this section (*N* 2, *c*). The nutritious appendices (*N* 2, *f*.) occupy most of the space between the stomach and the muscular coats.

The hardest parts, however, of the intestinal worms thus low in the class, are the sharp-pointed, conical, curved spines so numerous and so singularly disposed on the bodies of the various species. Sometimes these firm sharp spines are confined to the mouth, and serve obviously as teeth. At other times they are disposed over a great part of the anterior extremity of the body, giving it the character of a file, and serving as organs to abrade the surface on which they are to feed, or through which they have to force their way; they are thus also organs of progressive motion, like the cirrhi and setæ of the annelides, though they here differ in their position and arrangement. These spines are strongest and most numerous on the *acanthocephalous* entozoa, where they cover the whole of the retractile proboscis, and sometimes, as in the echinorhynchus hystrix, nearly the whole exterior surface of the skin. The transition is thus apparent from these teeth-like organs in the interior of the body to those covering the surface, and from those covering the surface of the entozoa, which move through a fleshy resisting medium everywhere in contact with them, to the lateral spines of the annelides, which can be moved with more freedom and more precision through a liquid medium or on the solid ground. In these beautiful magnified views of the *entozoa*, given by M. Bremser, the distinguished helminthologist of Vienna, you will observe, that even the softest hydatids and cænuri have their little oral disks surrounded by these reverted spines, to secure their position and obtain their necessary food, by abrading the living substance around them. In this extensive class of worms, the articulated form is of course greatest and most distinct where the exterior covering is most dense. Now there are many animals of this class which are found fixed, and sucking the vital fluids on the exterior surface of the body, particularly of fishes. We see them adhering to the lips of fishes, to the inside of their mouth, to their eyes, to their gills, and other tender parts uncovered by scale, which they can easily pierce. These *epizoa*, as they have been called, are generally fixed immoveably to one point, by means of organs appropriated to that office, extending from the sides of the head, and terminating each in a sharp hook. The rest of their body is freely exposed to the influence of the sur-

rounding water in which the fish resides, and acquires, on its surface, a much denser covering, much more distinct articulations, and has already developed from the sides of the trunk, rudimentary legs, and from the head rudimentary antennæ, maxillæ, palpi, and the other organs we find so perfect in this region in insects and crustacea. The highly-developed forms of the skeleton belonging to this class, are beautifully represented in these plates, published last year in Berlin by Professor NORDMANN. They are accompanied by a much more complicated internal structure than that of the entozoa I have been mentioning. You perceive this insect-like form of the skeleton in the head and trunk of the various lernææ and chondrocanthi, and the trunk in the lamprogiena of NORDMANN is even divided into a head, a thorax consisting (as in insects) of three segments, and an abdomen, the segments of the thorax having each a pair of rudimentary legs. We have thus all the characteristic parts of the complex skeletons of insects, already begun to be developed in the lowest of the helminthoid classes, and the general plan of this exterior skeleton, more or less consolidated, according to the exigences of the species, throughout all the animals of this great articulated division of the animal kingdom.

In the *rotiferous* animalcules, there are supra and infra œsophageal ganglia, abdominal longitudinal nerves, a dorsal vessel for circulation, lateral maxillæ, and many other parts which remove them far from the polygastrica, and serve to connect these singular minute wheel-animalcules with the helminthoid articulata. Their exterior covering is thin and transparent, but must possess considerable density, from the numerous muscles inserted into it; and when their body is retracted or shrunk backwards, we perceive distinct deep transverse corrugations, as you observe in these interesting figures of EHRENBERG, representing the *rotifer vulgaris*. But the densest and most important part of the exterior of the rotiferous animals, is the hard apparatus of jaws placed at the sides of the mouth, and representing the strong mandibles of insects and crustacea. In most of the rotifera these can be distinctly perceived, surrounded by a strong apparatus of muscles to move them with force, and they present at their proximate free margins a variable number of teeth placed parallel to each other, resembling the parallel tubes of a pans-pipe. In these large diagrams of the anatomy of the *hydatina senta* I have figured these lateral maxillæ

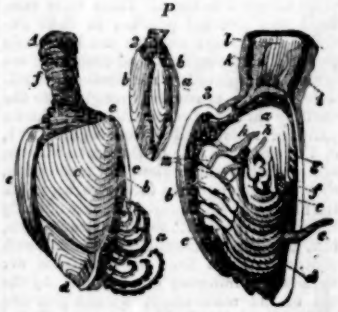
(*O* 1, *b*; 2, *a*) at the side of the mouth (*O* 1, *a*), surrounded with their muscular apparatus (O 1, *c*, 2 *b*). These animals moving about in the fresh waters appear as if they had revolving wheels at the fore part of the head. This appearance is produced by the rapid vibrations of the cilia, which are disposed sometimes in one, and sometimes in two circles on that part of the body. These minute organs have a complicated series of muscles for their motions, and of ligaments for their attachment. The numerous highly-interesting coloured plates of EHRENBERG, show you the muscular, nervous, vascular, and generative systems of these minute animals, and the numerous forms presented by these hard denticulated lateral jaws in the different species, and appear to establish their relations to the articulated classes of animals, rather than to the *radiated* classes, where they are placed by all the systematic writers.

We find animals, belonging to this articulated division of the animal kingdom, enclosed in permanent multivalve shells, like those of molluscous animals, and fixed immoveably to the surface of solid bodies along the shallow shores of all seas. They are called *cirrhopoda*, from the curled form of their feet, which you observe to consist of six pairs of jointed ciliated appendices attached to each side of the posterior portion of the body in these dissected *barnacles* and acorn-shells. Notwithstanding the molluscous appearance of these animals, from their being enclosed in shells composed of carbonate of lime, growing by successive layers, and lined internally by a secreting fleshy fold like the mantle of a gasteropod, the animals themselves have all the characters of entomostracous *crustacea*, and indeed I used formerly to consider them as forming an order of that class. Like the insects and worms, they have two nervous chords running along their abdominal surface, with regularly-disposed ganglia upon their sensorial portions or anterior columns. Their articulated extremities are symmetrically disposed on the two sides of the body. The branchiæ are formed like those of crustacea, and, as in that class, are attached to the extremities on each side. Their intestines are not convoluted, like those of molluscous animals, but pass straight through the body, as in most other articulated classes. They appear to be as little provided with organs

of sense as the entozoa, and, fixed in an inverted position in their immoveable shell, they as little require such organs; indeed, their head, as in most helminthoid classes, is scarcely distinguishable from their body. The long cellular peduncle of the anatifa (*P* 1, *f*) is attached to the part of the shell next the head of the enclosed animal, and the organs of generation and the anus terminate in a long funnel-shaped tube, thin and flexible, which is prolonged from the opposite end of the body. The circulation is aided by only one pulsating cavity, as in most articulated animals. Notwithstanding the difference in external appearance, between these numerous sessile and pedunculated species, the internal structure is remarkably similar in all the animals of this small class. These are the animals which you observe covering, as with a calcareous crust, the rocks on all parts of the seashore; they adhere to and cover the surface of the shells of marine animals, and the stems of marine plants. They adhere to the skins of whales, and I have found them growing on the surface of porpoises I have dissected on this table. They adhere to the bottom of ships, even when coated with metal, because they secrete a calcareous layer between themselves and the corrosive oxidizing surface, and by their calcareous shells thus spreading over the ships under surface, they afford the means of attachment to all kinds of marine plants and zoophytes, so that the ship's motion is retarded by its dragging a forest through the sea. The shells of these little cirrhopods cover all timbers exposed in the sea, and the broken utensils and instruments thrown out from vessels lying at anchor in roads, as you see they have covered the surface of these glasses and porcelain vessels taken up by dredges from the roads in the Firth of Forth.

These shells are composed of layers of the carbonate of lime, added one to another, and always the new disposed on the inner surface, and extending beyond the margin of the old. They are thrown out on the surface by the fleshy part, which has been compared to the mantle of the molluscous animals.

In the common *barnacles* or acorn-shells you will observe a multivalve skeleton—this belongs to the fixed or sessile kind, while that of the anatifa is pedunculated. We have here, in the common barnacle, six pyramidal portions, with their base applied to the rock; and, intervening between these, there are six pyramidal portions, with their points directed downwards, so that there are twelve pyramidal pieces in this little conical shell, and it was necessary to have it composed of several detached pieces, to allow of its increase during the growth of the enclosed animal. This is not a cone, like the unilocular shell of a gasteropod, which, being open at its base, can grow by simply adding new and larger cones within the old. In this common *balanus* the open part of the shell is the apex of the cone, so that new layers, added to its interior, would diminish both cavity and aperture, if the whole were not divided into pieces connected together, like the plates we saw yesterday composing the globular shells of the *echinida* (*L*). On examining the outer surface of these pieces of the *balanus*, you can perceive the lines which mark the limits of the successive layers, and the direction in which these layers have been added to each piece; these are also beautifully marked on these thin diaphonous shells of the *anatifa* (*P* 1, *c*, *d*, *e*), where the consolidation of the proximate and distal lateral pieces has proceeded in opposite directions. The calcareous piece which filled up the base of this cone, and connected the balanus to the solid rock, was next to the buccal extremity of the animal. At the other extremity of the shell, where it is open, and from which the feet and branchiæ of the animal are incessantly advancing and retreating in the living state, there is a moveable operculum composed of four pieces. The two pairs of pieces of this operculum possess great mobility, to allow of the continual protruding of the animal's body, and they grow by the addition of inner layers, like the other pieces around the shell. This great mobility in the pieces of the operculum is necessary for the frequent acts of respiration.



In this *anatifa* of Lamarck, or *pentalasmis* of Hill and Leach, the exterior shell consists of two pairs of lateral pieces (*P* 1, *c*, *d*; 2 *b b*), and one median piece (*P* 1, *e*; 2 *a*), placed along the back of the enclosed animal. The two large proximal pieces (*P* 1, *c*, *c*) have a triangular

form, with the base towards the peduncle (*P* 1, *f*), which connects the animal to the rocks in the sea. The anterior angle of this base is the part first formed, and the successive layers of this piece extend towards its dorsal margin, where they meet the smaller terminal pair (*P* 1, *d*), and the dorsal piece placed on the median plane (*P* 1, *e*). The two terminal pieces begin their consolidation at their anterior margin, near their distal extremity, and they grow by the extension of the new layers towards the large lateral pair; so that the two lateral pairs of pieces grow by the addition and extension of their layers in opposite directions. The single dorsal piece grows like the shell of a *sepia*, by the addition of layers to its inner surface, and, from the base next the peduncle, towards the small terminal pair. But this dorsal piece of the *anatifa* has a position with regard to the contained inverted animal, the reverse of that of the shell of the sepia, where the first-formed very concave layer is placed at the outer surface of the caudal extremity of the shell. In some of these pedunculated cirrhopods, as in the *pollicipes*, there are several small supplementary pieces at the junction of the peduncle with the base of the shell, and some have only a cartilaginous covering, unconsolidated by calcareous pieces. The anterior part of the body of the enclosed animal, as in other articulata, has less of the articulated appearance, less distinct segments than the posterior portion of the trunk, and has the skin of that part thin and membranous. But the mouth is provided with a pair of lateral mandibles, and a pair of maxillæ, which have soft rudimentary palpi attached to them. From their confined and inverted position in their exterior shell these animals can have little power of selecting food, and their jaws are probably employed in masticating the minute floating crustacea, brought into the shell by the act of respiration. All the six pairs of articulated curled organs (*P* 1, *a*, 3 *d*) on each side of the post abdomen are probably subservient to respiration, they so much agree in their structure with the branchiæ. These curled feet are not only minutely jointed with their extreme points, but, also, the innumerable fine cilia which project inwards from their surface are themselves minutely jointed, and, by the aid of the microscope, we can perceive that these jointed cilia are also ciliated on their margins, but I have not been able to trace this structure more minutely.

* In the above figures of the *anatifa* (as well as in some of the preceding wood-cuts) the reader will find many *letters* which are unnoticed in the present lecture,—such letters being introduced for the purpose of facilitating future references.—Ed. L.

Thus nature everywhere surpasses our comprehension and our means of research, whether we contemplate her grand operations in the construction of the universe, or attempt to measure her skill in the structure of the minutest fibre of organised matter.

The skeletons and the whole structure of the *annelida* advance us a step higher in the development of the articulated classes, and lead us into those forms which possess articulated members for progressive motion. Some of them have the exterior so soft as scarcely to present an articulated appearance, as in the pleione and in the common halithea or sea-mouse. Some, as the *leech*, have only the trunk of the body developed, and from want of extremities are gifted with great pliability and numerous segments. In the earth-worm the segments are larger and firmer, and each ring is provided with four pairs of very minute, curved, conical, and sharp-pointed feet. Sometimes, as in the nais, there is but one long filament, developed from each side of each segment, which assists them in moving on a solid surface, and in their serpentine motions through the water. The skin of these red-blooded worms is soft and pliable, to compensate, by the motions of the trunk, for the want of feet, while the softness and delicate sensibility of the skin compensate for the imperfect development of their organs of sense. This delicacy and unprotected condition of their outer surface cause many of them to shield their body in adventitious tubes, variously, and often most artfully, constructed. But the skeleton of articulated animals is their exterior skin, to which their muscles are attached, whether it be hard or soft. Where it is soft, the articulations are of course less marked and less needed. As the skin becomes consolidated, the articulations in these classes become more complex, and, therefore, as we ascend through the myriapodes to the crustaceous animals, those joints become more distinct and more complicated. Even in those, however, which mark the earth-worm, with the body thus soft and naked, there are hard spines of a horny consistence, which serve for progressive motion. Supposing you make a section of the earth-worm through the middle, and look down upon the middle of a segment, thus (*drawing a diagram on the board*); you can see that it has eight short, curved, conical, tubular, pointed feet on each ring or segment of its body. With the naked eye you can scarcely perceive them; with the lens you can; but with the fingers feeling the sides of the worm, you can distinguish them in the common earth-worm very well. Now these feet,

which are disposed in four pairs, are extremely simple forms of the apparatus which we find so common and so highly developed in other forms of the annelida; as, for example, in this aphrodita and pleione, whole bundles of setæ shoot out from lateral sheaths of the body; and here, in the pleione, where they are, as in the earth-worm, in two pairs on each side, they consist of large fasciculi, or brushes of setæ. The upper pairs are the analogues of the wings of insects.

Now to the anatomist, the consideration of the nature and relations of these projecting filaments is not without interest. Nature knows no sudden transitions. Our ignorance, however, often makes us think that she passes rapidly from one form to another, and that there is thus a sudden transition,—a break, a gap, in Nature's works.

When we look at the surface of a common *centipede*, we see something like the jointed body of a worm, with parts projecting from its sides, which are also jointed, and which we know to contain the muscles and all the active apparatus for the motions of these members, or for the motion of the *cirrhi*, as they are called, in the earth-worm. We find no such tubular-jointed feet in many of the annelides. In the skeleton of the pleione I was speaking of, where there are brushes of setæ, we find, in the place of the tubular-articulated feet of those centipedes, feet that are solid internally, and not jointed externally; but it is interesting to observe, that in a great number of them these lateral spines or setæ are not solid, but tubular, as you observe in these figures of the *nereis* (*Q* 1, *c c*); they contain a cavity within them, and even present an articulated surface, thus approaching to the form of the feet of *myriapoda* (*Q* 2, *d*; 3, *a c*).

Now we have got in the annelides the common tubular skeleton that covers the body and the extremities of all the higher classes of this articulated division. In this class, the *annelides*, we find many of the animals, from their naked and unprotected condition, exuding from their surface a secretion which acquires considerable firmness, and forms a cartilaginous tube. This exterior cartilaginous covering is generally still further consolidated and concealed by agglutinating to its surface particles of soft mud, or sand, or shells, or gravel, by which the worm's soft body is protected from danger, and it thus lurks in concealment from the sight of its prey. As these tubicolous annelides are aquatic animals, breathing by means of branchiæ or gills, the respiratory organs are in them generally extended from around the head, that they may be nearest to the surrounding medium. The earth-worm has little air-bladders opening along its sides, by which it can respire atmospheric air, and perhaps even water, from the moist soil in which it chiefly lives. The leech has eleven pairs of these vesicles. The *Nereis* (*Q*), the common

nereides or sea-centipedes, inhabit for the most part soft tubes covered with mud or sand; they have beautiful, shining, pearly colours on the surface of their well-marked segments (*Q* 1 *e*). In all their appendices developed from the trunk we see also the jointed appearance (*Q* 3 *a*). They have numerous antennæ (*Q* 1 *b*) like crustacea, and strong lateral jaws, and feet of a complex structure, and disposed with as much regularity on the segments as those of a *scolopendra* among the myriapods. Their feet (*Q* 2, *c*; 3 *c*) are for the most part provided with two cirrhi, two tubercles, and two tufts of horny setæ, so that they are well prepared for motion on the ground or through the water. The terebellæ artfully agglutinate portions of shells and gravel around their tubes, which are often straight, so that they have less lateral motion of their body, and the segments are generally large. In the very common and well-known species of our sandy coasts, the *terebella conchilega*, the tubes extend often nine or ten inches perpendicularly through the sands, and terminate at the surface of the sand in radiating tubular filaments of the same shelly case, through which parts the numerous tentacula around the head are protruded. Frequently we find many of these circles of filaments near the upper end of the tube, from its being repeatedly buried by the ever-moving sands, and thus obliged to build up its tube to a greater height, and form a new circle of little tubular filaments for the protection of the tentacula. You will see them in millions projecting above the sands when the tide is at its lowest ebb. The most beautiful forms of these red-blooded worms, and the most delicate in texture and organization,

are generally those found in the least showy and conspicuous tubes, such as those which inhabit these simple tubes of sand. What I now show you, like a shapeless ball of agglutinated sand, is composed entirely of tubes thus constructed around the little delicate bodies of the sabellariæ. The whole of this is a mass of sand composed of numerous little tubes for worms. Now these exist in such vast quantities that frequently you may walk on the coast, over a considerable tract, entirely composed of them, giving way under your feet like snow, and you feel as if you were crushing something by the yielding of the sand-tubes of these *sabellariæ*. On looking where your feet were, you find the place strewed with red-blooded worms, which are the animals contained in these tubes. Nothing can exceed the beauty of these little animals when put into glasses of pure sea-water and examined minutely. You perceive the perfect symmetry of these *pectinariæ*, called pectinariæ because they have this splendid *pecten* of bristles, shining like polished gold, extending from the head, the bright lustre of which you may see at any distance. I have separated some of these animals from the tubes, that you may see the beautiful structure of the worms, and through their transparent texture perceive that their intestine is entirely filled with pure sand. It will show you how busy it has been, with thousands of other animals, in extracting nourishment from the organised beings contained in the moisture of the sea-sands. Those little sand-tubes of the pectinaria are found placed perpendicularly in the sands about that part to which the tide retires at its lowest ebb, and just before it begins to turn out. The animal lays hold of the minute particles of sand, and builds up for itself, with its adhesive secreted substance, the beautiful, symmetrical, and conical form of tube by which it is protected.

Nothing is more common than to find, when objects have remained for some time at the bottom of the sea, that they become covered with beautiful convoluted calcareous tubes—solid, conical tubes, which contain each a red-blooded worm; these are formed by the *serpula*. They are not formed by adventitious matter drawn from a distance, but are formed of layers of carbonate of lime, by secretions due to the living powers of the worm. It secretes from all parts of its surface calcareous matter in form of a winding tube, shut at the tapering extremity, and open at the other wider end. Now these are of course cones, whether they be straight or convoluted; sometimes they are straight, sometimes united together in large fasciculi, and sometimes they are convoluted and separate from each other, having a beautiful serpentine form;—hence the name of *serpula*. These, then, are composed of the carbonate of lime, with a little animal matter; there does not appear to be here any of the phosphate of lime. These cones are altogether extra-vascular, and exterior to the skin of the animal, and, like the adventitious tubes of other annelida, have very little connexion with the body of the worm. The animals contained within these calcareous tubes are provided, like the other tubicolous annelides, with lateral setæ, or bristles, extending from the side of the body.

We find that in some of these red-blooded worms, where you do not externally perceive the transverse divisions, as in the common aphrodita or halithea, there are, beneath this outer reticulate integument, which allows the water freely to pass through it for the respiration of the branchiæ within,—moveable laminæ, and those moveable laminæ are compared by Meckel to the upper portion of the shells of the crustaceous animals that complete the rings of their vertebræ or segments.

Thus then we have, in the simple structure of the *annelides*, the rudimentary condition of the skeleton in all its essential parts, both of the rings or segments that encompass the trunk of the body, and the external horny articulated tubular parts that embrace the cephalic and caudal appendices and the extremities, as in the higher articulated animals with articulated members. Their body is inverted, so that their digestive, circulating, and respiratory organs, their motor and ganglionic nervous columns, and other systems, occupy a position the reverse of that of the vertebrata. These conditions of the articulated skeleton of the worms, which I have mentioned, are not without interest, considered with relation to the theory of *analogies*, and the metamorphoses of the elements of organic forms. Those horny spines which project from the sides of the segments or rings of the trunk, in the red-blooded worms, exhibit often a distinct articulated form, like the extremities of a crab or an insect. These appendices are obviously marked and indented, so as to be jointed or subarticulated, so that we have already in the red-blooded worms the elements of all the parts of the denser skeletons which we meet with in the higher articulata. The symmetry of form, the harmony of arrangement, the unity of plan, in the whole structure, we find thus to pervade all the articulated classes, though they are here comparatively but little distinguishable from the small num-

ber of parts yet developed; and this shows us that even thus low in the scale nature has acted in the construction of these exterior tegumentary jointed organs of the simplest worms, upon fixed, obvious, and uniform laws. The skeleton of the simplest tæniæ or lernæa of the lowest class, *entozoa*, presents in itself the plan upon which the skeletons of the most complex *insects*, or the highest species of the *crustacea*, are constructed. But the development and structure of these more perfect forms will engage our attention when we meet again.

CLINICAL LECTURES

ON

DISEASES OF THE UTERUS AND ITS APPENDAGES;

NOW DELIVERING IN PARIS,

By M. LISFRANC.

ON UTERINE HEMORRHAGE OR METRORRHAGIA.—ON LEUCORRHŒA.—ON HYSTERIA.

1. *On Flooding, or Metrorrhagia.*—The species of flooding of which we are about to speak, is that which is connected, as cause or as effect, with affections of the uterus, and totally distinct from the loss of blood which occurs during pregnancy or labour, and which comes more naturally under the province of the accoucheur.

Metrorrhagia may attack females who still menstruate, or those who have ceased to lose any blood periodically; the latter case is very common. Thus five, ten, fifteen years after the critical age, women are seized with a sudden hemorrhage from the uterus, and imagine that their menses have returned. We should avoid confounding abundant menstruation with flooding. The latter never has that periodic regularity which characterises the menses. Thus hemorrhage may appear, and last for fifteen days, more or less; then may disappear spontaneously, and either return at some undefined period, or never. Sometimes, however, it is connected with the appearance of the menses; but still presents characters sufficiently distinct to be recognised. Sometimes the menses appear first, stop after one or two days, and the flooding comes on next morning, continues for ten days, and then ceases for twenty-four hours to commence afresh. At other times the flooding is first noticed, ceases a little before the commencement of the menses, and permits them to run their usual course.

When these floodings are very copious, and have lasted for several years, they become as it were constitutional, and it would be imprudent were we to suppress them suddenly. We would have to apprehend the occurrence of some severe affection of another organ, particularly of the lungs, which sympathise so intimately with the genital organs.

The attention of the practitioner should be particularly directed to this point after the cure of ancient metrorrhagia. As soon as any unfavourable symptom shows itself, he should hasten to relieve the sanguineous system by the abstraction of blood, and apply a seton to the inside of one thigh, or even to both, if the symptoms be intense, in order to set up an irritation in opposition to that which exists within the pelvis.

A young woman, twenty-eight years of age, who never had any children, was affected for twelve years with flooding, which came on regularly before the menses. The first time I attempted to arrest this flooding, she was attacked with peritonitis; on the second attempt, in spite of preparatory bleedings, she was seized with pneumonia; after a third, with meningitis: all these inflammations yielded, as by enchantment, to the application of leeches on the vulva.

A woman, living in the Rue St. Martin, suffered for eight years from a similar flooding, brought on by an engorgement of the uterus. A revulsive bleeding of the arm arrested the hemorrhage, but headach and various other affections immediately supervened, and did not give way before the re-establishment of the accustomed discharge.

A young female of the Rue Gaillan, affected with pulmonary tubercles, experienced from time to time very abundant flooding. I was very cautious not to suppress it completely; I simply moderated the quantity of the discharge, and as soon as any increase of pulmonary symptoms occurred, I endeavoured to encourage the determination of blood to the uterus. By this simple but rational treatment the life of the young patient was prolonged for three years, during which time the phthisis seemed to remain stationary; but she went into the country, and her new physician immediately applied himself to suppress the loss of blood, to which he attributed the feeble health of the patient; in a few months she was dead.

Is uterine hemorrhage an essential disease, as many physicians still think? For a long time I have taught that metrorrhagia is to the uterus what hæmoptysis is

to the lungs; and as this latter symptom rarely occurs without organic alteration of the pulmonary tissue, uterine flooding of a certain standing indicates nearly constantly organic change of the womb. It is not meant to lay this down as an absolute rule, for where have we such in medicine? but amongst the immense number of cases which I have occasion to examine, I have not as yet met with a single exception.

The causes of uterine flooding are various. Sometimes they depend on the presence of a polypus; we will speak of this presently; sometimes on a slight or severe inflammation of the neck or body of the uterus, or on the slight erosions of the parts which escape discovery by the touch, and can only be well distinguished with the aid of the speculum, on an inflammation of the vagina; or, finally, on any cause of irritation which exists in the pelvis and attracts the blood towards the viscera of that cavity. We can readily enough repress for the moment a uterine flooding, but to get rid of the complaint radically, we must direct our attention and means of cure against the original cause which gives rise to it.

We thus see, on the foregoing principles, that the practitioner may have occasion to treat three distinct kinds of cases, which will require a suitable and modified treatment; either the chief affection is curable, and the discharge may be stopped without any danger; or the flooding is connected with some severe affection of another viscus, which its suppression would inevitably aggravate; or, finally, it depends on some incurable affection of the uterus itself. Let us examine successively these three cases.

1st. Although the female may not present any visceral alteration, we have seen that the sudden suppression of a metrorrhagia may induce many inconveniences; we should, therefore, be extremely careful to prepare the economy for the change, though the flooding be of short date. Thus, it will be right to commence by taking one or two palettes of blood, or even more, from the arm. Basquillon never omitted this practice, even when the pale lips and small pulse of the patient indicated an exsanguine condition. It is not rare to see the strength increase, instead of diminish, under the influence of this simple means. The woman must at the same time remain perfectly quiet, and she should drink some mild decoction, or syrup. The next morning, if the patient have a little strength, we may renew the bleeding, after which we pass to the employment of local means, such as cold, or astringent applications; the pelvis should be elevated, and, finally, if the hemorrhage be severe, we must have recourse to plugging the vagina, one of the most certain means we possess.

The discharge of blood once arrested, we apply our attention to the disease which gave rise to it, and the cure of the latter will, with all certainty, prevent the recurrence of the former. The principles of treatment are the same when the flooding is ancient, and is, as it were, domiciliated in the constitution; but, in that case, the preparatory measures should be employed for a longer time and at larger intervals, in order to accustom the constitution gradually to sustain the suppression of a discharge to which it has been so long habituated. We must act for entire months on the economy, and employ all our hygienic resources; a regimen sometimes tonic and substantial, sometimes vegetable and scanty, according to the state of the patient; emollient or astringent draughts, and especially, from time to time, small revulsive bleedings. By means of these general remedies the flooding will gradually diminish, at first in intensity, soon after in frequency of occurrence, and we shall quickly be able to suppress it completely without danger.

2nd. If any visceral affection exist at the same time as the uterine discharge, the duty of the physician is easily traced, and consists in moderating its abundance by the general means already indicated, but abstaining scrupulously from any local applications which may suppress it altogether.

3rd. The last case is that, where the flooding is connected with some incurable disease of the uterus. Here the discharge, provided it be not too abundant, is, in most cases, a benefit to the patient, and diminishes the uterine engorgement, and alleviates the severe pain; on the contrary, when suppressed either by art, or spontaneously, the pains return at once, all the symptoms are aggravated, and the disorganization, which was before slow, marches with a frightful rapidity. In these cases we should evidently respect the discharge, but in more rare instances the hemorrhage causes new pain, a proof that it depends on a fresh engorgement, which should be treated by general remedies, and chiefly by revulsive bleeding. At present we have only spoken of bleeding, the quantity of which, though sometimes considerable, is never sufficient to threaten the life of the patient immediately; but if the hemorrhage come on in a violent manner, every after consideration must yield to the urgency of the present danger. Besides revulsive bleeding,

we should, in such cases, employ the most prompt local means, cold astringent injections, or have recourse to the plug without delay.

It is unnecessary to point out here the common method of plugging the vagina, but it may be useful to note a few principles applicable to this subject. If the cavity of the vagina be quite free, it is sufficient to plug it simply to the depth of an inch; if the vagina be filled with morbid excrescences, we must place a flat compress on the vulva, and maintain it in position with the hand, or with a bandage. The object of these precautions is not to irritate, by the contact of the apparatus, the altered tissues, or the neck of the uterus, which, as we know, acquires a great degree of sensibility when in a diseased state; we are also familiar with the influence of foreign bodies in contact with the uterus, in the production of metrorrhagia. The clot which soon forms between the compress and the os uteri, will soon act as the least irritating plug. After an hour or two, it is necessary to remove the apparatus and the clot, in cases where the discharge of blood should be moderated, but not suddenly and completely suppressed.

2. *Of Leucorrhœa, or the Whites.*—Leucorrhœa, as well as bloody discharges from the uterus, has not often been considered as an essential disease. Without doubt it may arise, in the first instance, from the vagina alone, and extend thence to the uterus, constituting the vagino-uterine catarrh; but after an uncertain period, and sometimes very shortly, the uterus becomes engorged, and the catarrh, which was at first the principal affection, no longer constitutes anything but a secondary symptom. In many cases, also, the disease pursues an inverse course of that we have mentioned, and commences by engorgement of the body of the uterus. The discharge, which arises at first from the mucous membrane of the vagina, does not always come from the same morbid condition of parts; at an early stage we find a simple injection of the membrane, with more or less swelling. At a later period we have infiltration, induration, and ulcers of the vagina, or neck of the uterus, (a fact which has, in latter days, been published as new, but which was made known, twenty years back, by Viguerie,) and, finally, vegetations.

From this enumeration it is manifest how necessary it is to explore attentively the vagina, neck, and body of the uterus in cases of whites, and to regulate by such examination the essential modifications which the treatment must undergo. We shall not repeat here, on the causes of leucorrhœa, what may be found in all books upon the subject. I would enumerate especially the use of warming-pans, and of coffé, which brings on this discharge immediately in some women. It is well known that a white discharge frequently comes on in moderate quantity the second or third day after the menses; but I have witnessed a fact much more singular and almost unique, in a woman affected with engorgement of the uterus. Five, ten, fifteen, or twenty days after menstruation, some premonitory symptoms come on as if the discharge was about to return, and immediately after a white serous discharge takes place in such abundance, that the woman is compelled to wear cloths, and so acrid, that it irritates excessively the great labia and the skin of the thighs, causing there very smarting pains. In about two days these symptoms disappear.

Is this what was formerly termed dropsy of the uterus? I have, at different times, explored the uterus by the vagina, rectum, and hypogastrium, with the minutest attention, and have never found the volume of the organ increased, if we except the engorgement. In order to be more certain on the point, whether any liquid was collected within the uterine cavity, I have passed up, through the os uteri, the extremity of a gum elastic tube, without finding anything. Hence the serous discharge in this case is produced by a sudden exhalation from the internal surface of the uterus. Are white discharges contagious or not contagious? Are they, or are they not, venereal? These are questions which are very difficult to be resolved, and upon which practitioners are still divided. I think that a white discharge may communicate the venereal disease, especially when the former is connected with small ulcerations of the vagina or urethra,—a case more common than is usually thought, but which may be ascertained by examining with a glass those parts, the slight erosions of which easily escape the naked eye.

We may now pass to the details of the treatment. When the discharge is recent, and arises from an acute inflammation of the mucous membrane, we must employ, above all remedies, antiphlogistic means; with this view we prescribe emollient drinks and vegetable diet, and take blood in more or less quantity from the arm, paying some attention to the abundance of the menses. I do not approve of the application of leeches to the pelvis in acute diseases, except when complicated with peritonitis. To these means we may join emollient, nearly cold, injections into

the vagina, keeping the pelvis slightly elevated, that the injection may be retained and form a kind of local bath. When the inflammatory symptoms are calmed, we have recourse to revulsives, as copaiva or cubebs, which generally complete the cure in a few days. When the discharge is chronic, revulsives are equally indicated to stop it, unless depending on some alteration of the tissue. If the mucous membrane of the vagina be hardened, we must employ friction of mercurial ointment, and the hydriodate of potass to the upper and inner part of the thighs; or, if the woman can support it, we may place a rag smeared with mercurial ointment in the vagina; and, finally, we may employ injections of various natures.

For a great length of time, surgeons were afraid to throw injections into the cavity of the uterus when affected with catarrh, though Hippocrates had advised the practice, which was, moreover, revived at the end of the last century by Viguerie. It is a simple operation when performed with proper precaution. We first inject simply fresh water, we then employ decoctions or astringent injections, or styptics, the strength of which should be gradually increased by the addition of a few drops of concentrated acid. A gum elastic tube, introduced with circumspection, serves as a means for conducting the injected fluid, and we are thus enabled to cure white discharges, which obstinately resist every other method. Sometimes the injections stop the discharge suddenly, as in the male; or they act more slowly, in general requiring twenty or twenty-five days On other occasions they convert the chronic inflammation into an acute one; hence the treatment must be modified to the case, and usually twenty-five to thirty days are sufficient for a perfect cure. Should the discharge be kept up by chronic ulcerations, vegetations, or engorgement of the uterus, we can only hope to remove the effect radically by acting on the cause which produces it. However, there are two cases in which we should proceed with more reserve.

When these discharges are very ancient, they become habitual, and necessary to the economy; it is frequently impossible to supply their place, and imprudent to attempt it, more especially if the woman be old, feeble, or have any tendency to scrofula. In other cases it is necessary to set up beforehand some artificial discharge, which may supply that we intend to arrest. Intermittent discharges also require, with respect to their suppression, the same precaution as uterine flooding. We shall not repeat what has been already said on the latter subject. In all cases, in studying carefully the constitution of the female, if we find they have succeeded to the suppression of some evacuation, to the retrocession of an exanthema, we may effect a cure without inconvenience, by substituting some artificial exutory.

Of Hysteria.—According to many physicians, hysteria being always a nervous disorder, can never be studied in a surgical point of view; but experience does not support this too exclusive opinion, and if the disease be sometimes nervous, more frequently it depends on some irritation or slight inflammation of the uterus. Being frequently called to visit hysterical women, I have practised the toucher in this disease, and the uterus has almost always appeared to enjoy an excess of sensibility, and to be in a state of turgescence and hypertrophy. The neck had the form and size which it presents in the second month of pregnancy. In some cases where the inspection of the body was offered, the slight inflammation of the uterus already noticed, was equally seen. Hence I generally prefer the antiphlogistic treatment; after revulsive bleeding of the arm I prescribe baths, emollient injections, and narcotics, administered by the anus, and, when all these means fail, flying cauterization of the abdomen. When we were besieged in Metz in 1813, a young girl was attacked with fits of hysteria, which resisted every means employed against them, but they yielded completely to the cauterization. We also know that hysteria succeeds sometimes to the abuse, sometimes to the privation, of sexual intercourse. These causes merit peculiar attention; but a capital rule of conduct is to pursue the treatment with perseverance for a month or more if necessary; and if the disease appear at first obstinate, be equally obstinate yourself: success is frequently attained by these means only.

LECTURE
ON
BOUGIES AND CATHETERS,

Delivered at the Westminster Hospital,

By Mr. GUTHRIE.

I CALL your attention, Gentlemen, to three different catheters, which are before me, which are applicable for passing into the bladder when the prostate gland is diseased. The first catheter is the one ordinarily used by surgeons; but its kind of curve experience has shown to me is a hindrance to its easy sliding over a swollen prostate. As a substitute for this

inconvenient instrument, I have invented this, which you must observe has a much larger curve, forming a small segment of a large circle. The catheter should be *fourteen* inches long, and not less in caliber than a No. 12 bougie; the terminal holes should be on the sides, and very small. You will find this size and shape very effectual, it slides easily along the urethra and passes over the *lacunæ*, without getting entangled. I particularly recommend this catheter in chronic disease of the prostate, when either of its lateral lobes, or what some people are pleased to call its third lobe, may be considerably magnified, and its length prevents it from getting obstructed in the fold near the prostate, which I have already described. This I call my prostate catheter No. 1.

My prostate catheter No. 2, you observe, is very different in form and thickness and length. The curvature is more abrupt (very similar to Heurteloup's percussor), and adapted to go over the prostate in less chronic states of derangement, and it is shorter and smaller. When a young gentleman comes into your room with stoppage of his urine after having had urethral discharge a long while, you may infer that his prostate is diseased, or the neck of the bladder affected in the way I told you on a former occasion. You will often find in such a case that vain attempts at passing instruments have been made, but have always failed in consequence of the irritation of the parts. If you use this form of instrument, you will surprise your patient by the facility with which you may introduce it. Apropos to the *form* of these catheters.

The instruments I generally use are solid, or rather inflexibles; either of silver, or steel, plated; but as in this great town things are made more for show than for use, I recommend you to use in your catheters (as I do) a flexible metallic stilet which shall exactly fill the tube. These stilets of mine are of pure tin, which answers the purpose best. They improve the solidity and safety of the instrument.

Many surgeons are in the habit of using what are called flexible metallic bougies, and patients often prefer them, from an idea that they are less painful when in contact with their soft and delicate inner parts. These bougies, Mr. Stodart informs me, are little more than pure tin. When used they should be of large size, and should be kept very clean, and ought to be frequently changed, otherwise they are liable to break in the urethra, and that would be a serious accident. There is this good in them, that when introduced they accommodate their form a little to the figure of the parts. If the patient be rich, I would make him have a new bougie of this kind every time he had one passed; you thus would obviate the possibility of accident. When you have previously passed a silver catheter, such as I have just described, it may be withdrawn and a flexible metallic bougie carried along the urethra, and put in its place. This should be renewed as I have told you. There are flexible bougies made of wax of various consistence, as well as of gum-elastic, and are much preferred by some patients, having neither metallic hardness like silver or steel, nor lustre like the soft tin. Care should be taken that they are of sufficient tenacity and toughness not to break. You should always possess bougies of soft wax, in order to take impressions of any obstructions that may exist in the urethra.

In my own practice I never use soft metallic bougies; I prefer the inflexible steel ones, but as patients have often a strong objection to the introduction of cold steel into their bodies, I would advise you to have them plated or even gilt, for by this means you would remove the repugnance of many. The inflexible instruments are so much more obedient to the touch than the pliant ones, that their introduction becomes more facile, for by pressing the manual end you may guide the point in any way, as well as push it forward. In the pliant bougies you can do no such thing. You may press on the handle of the instrument indeed, but you only impel it onwards in its direct course. If, therefore, any little fold stops the point of the instrument, its progress is arrested, and the obstacle cannot be overcome by any manœuvring. A small instrument is particularly liable to be hindered in this manner from its point getting entangled in a fold or lacuna. A gentleman called upon me some time since who had been endeavouring to pass a very small instrument, but in vain, for the reason just alluded to; and when I at once passed so large an instrument as my prostate catheter No. 1, he was perfectly astonished at the circumstance.

There are three stages in the introduction of a catheter. The *first* is the passing of it through the flexible penis. You may begin, having the concavity of the curve towards the patient's body, and the handle parallel with, or at any angle from, the vertical line of the body; but in fat, corpulent subjects it is better not to have the handle against the belly. You pass the point without difficulty, till you reach the membranous part of the urethra, a little anterior to the triangular ligaments. The point is, *secondly*, to be pushed forward for a short distance; when, *thirdly*, the handle is to be depressed, and the point is carried

over the prostate, and into the area of the bladder. When this is effected, the handle of the catheter will be found between the heels of the patient, and the point freely moveable; if this free mobility do not exist, or the instrument cannot be thus depressed, you may safely conclude that it is not fairly in the bladder. The jargon of the old surgeons about the "*tour de maître*," was nothing more than a piece of villany on their part.

Patients are very much guided by appearances. You ought to have your instruments in the nicest order. I have my steel bougies always plated, and I would advise you to do the same: they pass along the passage very smoothly and nicely. I know a surgeon who is rather dandified with his instruments, and has a gilt bougie, with which he "turns his patient off," thus giving him something to remember, and an opportunity of saying that "Mr. So and So had cured him with a *gold* bougie."—I have so many engagements to-day, that I have not time to say any more; but, in a day or two, I hope to have an opportunity of making a few remarks on two very interesting cases of dislocation that have been treated in this hospital.

CASE OF

EMPYEMA,

CURED BY PARACENTESIS ALONE.

By GEORGE WOOLLEY, *Esq., Member of the Royal College of Surgeons, and one of the Surgeons of the Chelsea, Brompton, and Belgrave Dispensary.*

ON March 14th, 1833, I saw George Louch, aged five and a half years. He had been a healthy child till the preceding November. At that time he became the subject of fever, attended with inflammation of the brain, from which he was scarcely convalescent when he had an attack of pleurisy on the left side. He appeared not to have perfectly recovered from the latter. His mother said there remained cough, accompanied sometimes by pain, want of appetite, and weakness,—that he had not since the attack been able to leave the house,—had latterly become much worse,—and that she thought his chest had grown out on the left side.

I found him, very much emaciated, labouring under hectic fever; pain in the left side; great dyspnœa; harsh dry cough; constant thirst; entire loss of appetite; disturbed sleep and delirium at night.

On examining the thorax, it was obvious to the eye that the left side was larger than the right, which was also proved by admeasurement; and there was an even and smooth appearance of that side, from dilatation of the intercostal spaces. The heart was pulsating on the right side, in a situation precisely corresponding with that which it ought to have occupied on the left. On percussion, more or less of dulness of sound was observable over the whole of the affected side, but most at its lower part. Auscultation showed the entire absence of respiratory murmur on the left side, anteriorly and laterally; it was heard posteriorly all along the spine, but the sound was less loud than natural, and was accompanied by mucous rattle.

These circumstances seemed sufficiently to indicate that the left pleural cavity was occupied by pus, the lung compressed, and the heart pushed to the right side of the chest; and as the symptoms were urgent, I conceived it to be my duty to remove the fluid by paracentesis as speedily as possible. Mentioning the case to my late talented friend Mr. T. Alcock, in the presence of Dr. Roe, of the *Westminster Hospital*, that able and zealous physician thinking it one of interest, expressed a desire to see it, and be present at the removal of the fluid, which afforded me the advantage of obtaining his valuable opinion. We together saw the patient on the evening of the next day (15th), and Dr. Roe, after a minute investigation of the case, concurred entirely in the opinion I had previously formed. I accordingly proceeded to perform the operation.

The child, sitting on his mother's lap, and supported by her, a small flat trocar was passed into the thorax through the interspace between the seventh and eighth ribs, at the part where the digitations of the serratus magnus and external oblique muscles meet. Pus of a healthy character flowed freely through the canula, and two basinfuls were extracted, measuring forty-three ounces. A considerable quantity also escaped by the side of the canula, and ran down, wetting the mother's clothes completely through, so that altogether probably not less than three pints came away.

Towards the end of the operation, owing to the child being very unmanageable, it was impossible to prevent a good deal of air from passing into the thorax, which occasioned severe coughing, and ultimately obliged us to remove the canula before the pleural sac was quite empty. The aperture was carefully closed with a strip of adhesive plaster, and the little patient was returned to his bed; he soon felt much relieved, ate half a round of dry

toast, and drank some tea, having taken nothing during the preceding twelve days but toast-water. An opiate was given him, and he had thirteen hours of easy and tranquil sleep.

On the following day the hectic fever, thirst, dyspnœa, pain in the side, and cough, had disappeared, and this absence of unpleasant symptoms continued for a few days. But the heart remained on the right side; there was no return of respiratory murmur anteriorly; percussion showed the gradual refilling of the pleural cavity, and the symptoms came back and were nearly as bad as ever.

On the 28th, thirteen days from the first operation, in the presence of Dr. Roe and another professional friend, the trocar was again introduced; but now, between the ninth and tenth ribs, and two inches nearer to the spine. Thirty-eight ounces of pus were abstracted; the puncture was closed as before. The child slept well without an opiate, the symptoms all vanished, not again to reappear, and the little boy was soon playing about his room. Respiratory murmur gradually returned over the whole left side. The heart after some days began to remove to its natural situation, was soon found under the sternum, and in two or three weeks had re-established itself in its right place.

As nothing remained after the second removal of the fluid but debility, which was rapidly diminishing, no medicine was given to the child except, once or twice, something of an aperient nature, when the bowels were not sufficiently open. He is now quite stout and healthy.

The only observation I shall make on this case is, that the rapid and favourable convalescence of the patient appears to me to be attributable to the closing and healing of the puncture immediately after the operation.

Brompton Row, Nov. 20th, 1833.

SUCCESSFUL TREATMENT OF

SENILE, OR DRY GANGRENE,

BY STIMULATING MEANS.

To the Editor of THE LANCET.

SIR,—In perusing a lecture of that deservedly-celebrated surgeon Baron Dupuytren, published in No. 523 of your invaluable publication, my attention was particularly attracted by the following sentence, bearing on the disease called "dry" or "senile gangrene":—"During fifteen years we have essayed in this hospital every kind of stimulant,—bark, canella, and cordial drinks; but whether the disease was arteritis or ossification, the patient equally fell a victim."

Now, such an admission, coming, as it were, *ex cathedra*, should teach us candidly to confess our failures as well as to record our successes; for it is by this means alone that we can ever expect to arrive at, or even approach, perfection in the science of medicine.

The case I am about to relate is contradictory of the experience of the Baron; and although it did not occur in my own practice, I can vouch for its authenticity, having witnessed its progress in the hospital. I shall not give the details, which would prove tediously minute, but will briefly extract the essential features from my note-book.

Anne Mowat, æt. 82, was received into the *Royal Infirmary of Edinburgh*, on the 9th of November, 1828, under the care of the late lamented Dr. Duncan, jun. A great part of her right leg was of a livid hue, and gangrenous spots were evident on one of the toes, and on the heel of the same side. A phlyctena had appeared on the knee, which had left an excoriated surface,—dry, dark, and less sensible, than the surrounding parts. The temperature was low; the pulse 84, weak; tongue foul; bowels costive; anorexia and pyrosis. Pulsation of femoral artery on affected side very feeble as compared with the other, and that vessel evidently was altered in structure. Some small, hard points were perceptible in the radial artery of the left side.

Some years since she lost sensation in the right side of her face, since which her feet have been constantly cold. The vesication appeared on her knee, without previous pain, on the 3rd instant. The toes became itchy six weeks ago; then pain succeeded, and continued to the 4th, when it abated and discoloration ensued. Her mode of living has been comfortable, and she has used only aperient medicines.

The patient was immediately put on full diet,—beefsteaks and port-wine, with sulphate of quinine, gr. v, thrice daily. A cataplasm of charcoal, with tincture of myrrh, was ordered to the gangrenous spots; for which in a few days carrot poultices were substituted. On the 17th the toe had in a great measure spontaneously separated, and it was completely removed with a scalpel by my friend Dr. O'Shaughnessy of London, who was then acting efficiently as clinical clerk to Dr. Duncan. In a short time the sloughs came away from the knee and heel, in the poultices, and the sores were dressed with *ung. oxid. hydr. rub.* A feeling of pain, running along the course of the femoral

vessel, was relieved by the application of eight leeches. The bowels were unloaded by enemata. All the sores granulated favourably, and the old woman had so far recovered on the 18th of December, that reports of her case were no longer deemed necessary.

The treatment and result of this case are interesting, inasmuch as the latter militates against the experience in practice, as well as the theory (that of inflammation of the arteries) propounded by the learned Baron, for the report of whose valuable lectures the profession in this country are deeply indebted to the Editor of THE LANCET. I am, Sir, yours,

MARTIN A. EVANS, M.D.

Clifden Dispensary, Co. Galway,
Ireland, Nov. 1833.

REDUCTION OF

SCAPULO-HUMERAL LUXATIONS.

To the Editor of THE LANCET.

SIR,—It is amusing to observe the complacency with which medical men sometimes put forth as their own, the discoveries and observations of others.

M. Le Baron Dupuytren has lately given the above imposing title to that which he conceives to be a new mode of reducing the dislocated humerus, but which we are afterwards told was first proposed by M. Mothe, in a memoir presented to the Academy of Surgery in 1785. Doctor Malgaigne appears to have been the propounder of this discovery at the Hôtel Dieu, but he also was unacquainted with the observations of Mothe, although it is acknowledged that in Germany, where this plan of reduction is much used, it is known by the name of Mothe's operation.

In this country also this same mode of reduction has been extensively practised, and was first proposed in 1748; yet were the luminaries of the Hôtel Dieu ignorant of this fact, and of the following which I am about to relate.

The mode of reducing the scapulo-humeral luxation, by elevating the dislocated limb until it is brought nearly in a line with the axis of the body, was practised in this country long before 1785, in which year M. Mothe's memoir appeared. Mr. Charles White, of Manchester, first employed the above means in old dislocations in the year 1748, and attested their efficacy in a paper communicated by Dr. W. Hunter, and published in the *Medical Observations and Inquiries* for 1761. Since that time a modification of the plan has been recommended by Mr. Hey, of Leeds, in his Surgery. In 1809 a most comprehensive description of that which, at the Hôtel Dieu, has been lately announced by the Baron Dupuytren, with such pomp and circumstance, as "a new and important mode of reduction," was given by Sir Charles Bell, in his most admirable work entitled *Operative Surgery founded on the basis of Anatomy*. In that work not only is this practice inculcated as superior to any other, but the principles on which it is founded are fully and most ably illustrated. Sir Charles Bell's pupils have ever employed the means which their teacher recommended, and, as far as I had opportunity of witnessing, the practice has been attended with the greatest possible success. During my residence as house-surgeon in the Middlesex Hospital, I had extensive opportunities of proving the facility with which dislocations, forwards and downwards, may be thus reduced, and I could furnish numerous cases in proof, which I then drew up. In one instance only, out of forty or fifty cases, was I even necessitated to employ the aid of more than one assistant. His office it was to press down the acromion, whilst I made extension in a direction upwards, and in a line with the axis of the body. It was never necessary to use the pulley; the strength of one person was quite sufficient. The patient is seated upon the floor, the forearm is bent upon the upper arm, and a round towel is fastened by a sailor's knot around the latter, just above the elbow. The operator mounts on a firm table or chair, and makes extension upwards in a line with the axis of the body. An assistant, at the same time, presses down the scapula with his whole weight upon the acromion—this counter extension prevents the scapula from rotating and following the new direction given to the arm.

The above method of fixing the scapula has been recommended by almost all surgical writers, from the time of Ambrose Parè to the present day; he directs attention particularly to this point, yet would a late writer lead one to suppose that there was novelty even in *his* plan of fixing the scapula. As Sir Astley Cooper's work on dislocations and fractures appears to command such admiration, I suppose that I must be wrong in the impression which I received on reading it. I could not but appreciate the highly-wrought engravings, but I was never able to discover one original observation in it. Much that is valuable is certainly omitted, and the above method of reducing the dislocated humerus is not as much as noticed. Sir Astley strongly recommends the reduction to be effected

by placing the heel in the axilla, and there are several plates which represent surgeons most fashionably attired, with their well-turned legs in silken hose, who are performing this operation. If men would read more and write less, the public would not be great losers by the practice. I am, Sir, your obedient servant,

WESTON GOSS.

Dawlish, Devon, Oct. 29, 1833.

DOUBLE SPARK FROM AN ELECTRO-MAGNET.

To the Editor of THE LANCET.

SIR,—Permit me to lay before your numerous readers a discovery which I have made in electro-magnetism. Should any gentleman have preceded me, I have at least the satisfaction of knowing that I also found it, and without aid. It may, perhaps, induce some of your readers to repeat the experiment, and deduct from it some more important facts in this new and wonderful science. I was in the act of repeating some striking experiments on a miniature electro-magnet, a small, but efficient instrument, which I had constructed on the plan of Mr. Saxton's powerful magnet, when I found the means of obtaining *at the same moment* TWO *brilliant electric sparks*, over a surface of mercury. I was led to conclude that they were a combination of positive and negative electricities, though this fact remains to be ascertained. I had the advantage, on the 14th instant, of being present at the *reunion* of scientific and learned gentlemen, which took place at the *National Gallery of Practical Science* for the purpose of investigating the reciprocal merits of Mr. Saxton's powerful magnet, and of Pyxii's electro-magnet instrument (with which water was first decomposed in Paris, and which was brought into this country by the Marquis of Beaumont and the Count Predavalle). I communicated my discovery to several gentlemen, with a view to ascertain if any of them had obtained the same result before—but none had heard of it. Dr. Faraday, however, stated that he had heard of sparks having been obtained in succession, though not at the same time. I have therefore determined to make the fact public through the medium of THE LANCET, and beg to say that I shall be glad to repeat this interesting experiment before any gentleman who may wish to see it and will apply personally to me. I am, Sir, your very humble and obedient servant,

P. SIMON, M.D., M.R.C.S.L.

35, Gerrard-street, Soho,
Nov. 15th, 1833.

DR. BILLING ON THE SOUNDS OF THE HEART.

To the Editor of THE LANCET.

SIR,—In THE LANCET of May 19th, 1832, you did me the favour to publish my opinion, that the sounds of the heart proceed from the valves. Permit me now, through your means, to offer a few further observations on the subject as proofs.

The succession of phenomena of the heart's action is as follows:—First, the auricle contracts, then the ventricle, by the action of which the auriculo-ventricular valves are shut by the pressure of the blood against them. Upon the relaxation of the ventricle, the semilunar valves are shut by the backward pressure of the blood in the artery. The first sound takes place exactly synchronous with the impulsion and action of the ventricle, hence it might be supposed, that the action of the muscle (as averred by some) produced the first sound, but the second sound takes place at a time that there is no action of the heart going forward; and this is peculiarly evident when there is an intermitting pulse, as there is then a marked pause after the second sound, so that in fact there is nothing but the semilunar valves in operation to produce sound at the instant.

A. BILLING, M.D.

London Hospital, 22nd Nov. 1833.

ALDERSGATE-STREET DISPENSARY.

ADDRESS FROM PORTSMOUTH, PORTSEA, AND GOSPORT.

To Drs. BIRKBECK, CLUTTERBUCK, LAMBE, and ROBERTS, late Physicians, and Messrs. SALMON and COULSON, late Surgeons, of the General Dispensary, Aldersgate-Street.

GENTLEMEN,—We, the undersigned, medical practitioners of Portsmouth, Portsea, and Gosport, have witnessed with admiration and great satisfaction the noble stand you have made for the independence of the medical profession, and beg to offer you our most cordial acknowledgments on the occasion.

The venal and disgraceful system of making temporary governors to serve the purpose of those whose election would be doubtful, if weighed in the scales of merit alone, has, by your admirable and well-

timed sacrifice of office, received a complete overthrow, and we trust that, hereafter, scientific pre-eminence alone will distinguish those who may fill these responsible situations.

Gentlemen,—We feel assured that the sympathies of your brethren throughout the whole empire are with you, *and we cannot doubt but that the practitioners of the capital will rejoice in the ability they possess to make you some amends, by availing themselves of your acknowledged skill, whenever opportunities for conferring with you may occur.*

The undersigned had hoped, from the length of time which elapsed before candidates appeared to fill the situations so creditably vacated, that but one sentiment pervaded all minds; but they have learned with *regret*, mingled with *indignation*, that there are found in the ranks of the medical profession individuals who are *so far forgetful of what is due to its honour and dignity*, as to consent to accept office under circumstances which can reflect *nothing but disgrace upon their heads.*

We also highly appreciate the dignified procedure of the illustrious Prince who withdrew from the presidency of the institution, believing that the splendour of the charity was dimmed by the injurious and unjustifiable treatment of its medical officers.

Gentlemen,—We are convinced that, whatever may be the issue of this contest of principle, the peace of a good conscience, and the deserved blessings of the poor, will follow you, and be your abundant reward. We are, Gentlemen, yours, very respectfully,

(Signed)

J. Porter, M.D.; G. D. Meadows, M.D., *one of the Surgeons of the Portsmouth Gen. Dispensary*; J. J. Tate, M.D.; T. Ivimy; H. Carter; H. Slight; T. Gray; J. Stuart; R. Batchelor; G. Martell; William Dewey; J. Greetham; T. Waller, M.D.; J. Stewart, M.D., *Surgeon Extraordinary to H. R. H. the Duke of Sussex*; T. Gardiner; G. J. Scale; R. Wade; H. Duncan; J. Jenkins; W. J. Rundle; J. Slight; W. Weymouth; G. B. Hellard; W. H. Garrington; G. Webb.

Nov. 1833.

WESTMINSTER MEDICAL SOCIETY.

Saturday, November 23, 1833.

Mr. PETTIGREW in the Chair.

MEDICAL REFORM.—ARGUMENT FOR THE INSTITUTION OF ONE GREAT FACULTY OF MEDICINE IN ENGLAND, WITH A GOVERNING COUNCIL ELECTED BY THE MEMBERS OF THE FACULTY.

No subject has yet drawn together a larger and more respectable assemblage of members belonging to the Society than met within the walls of the Hunterian Museum on Saturday last. The floor of the room, which will hold between four and five hundred persons, was crowded in every part except the area in the centre. The discussion of medical reform, indeed, has here excited the highest degree of interest, and with pleasure we record an outline of the proceedings on the present occasion. The discussion was not concluded; for, at a late hour, not half the intended resolutions had been proposed, and the meeting was adjourned to the following Saturday, November 30th.

Dr. JAMES SOMMERVILLE, on a call from the President, (Dr. Sommerville having undertaken the preliminary measures for the discussion,) rose to move the first resolution. In no place, he said, which was open to the members of the medical profession, could the question before them be more appropriately discussed than in that Society. In fact, they were obliged so to employ such places of meeting as the present, for colleges or halls they had none in which they could assemble. He did not intend that night to present a bill of indictment against the medical corporations. His intention was rather to show that they were not in accordance with the spirit of the times; and having done that, he should contend, that only by a union of the profession could a reform in the medical constitution be expected. The first institution of which Dr. Sommerville then spoke was the College of Physicians, and in that he condemned the unjust division of Fellows and Licentiates,—the attempt to monopolize all the physicians' practice within seven miles of London,—the compulsory enactments relative to graduation at Oxford, Cambridge, and Trinity College, Dublin,—the refusal to have physician-accoucheurs in the College,—the disqualification of such men as William Hunter,—and some other of the gross abuses practised by the College. If, he said, he had proved anything by these facts, he had proved that the College of Physicians was not the

body in whose hands any share of the government of the medical profession ought to continue. He then adverted to the abuses perpetrated by the College of Surgeons, observing, however, that of them he should say less because that College had no legal power or jurisdiction over any persons but those who had subscribed to its by-laws. He could not, however, avoid noticing the fact, that its council consisted of twenty-one persons, elected he knew not *how*, though it was known by *whom*—themselves. They themselves appointed the examiners, like the council, for life, making the regulations for granting the diplomas, laying themselves open to the charge of not acting for the public benefit, and, if report spoke truly, enact by-laws of a most suspicious kind. The operation of their laws was most injurious. The regulations had ruined many individuals,—had taken the bread out of the mouth of Mr. Bennett, for instance, and had so injured the fortunes of Mr. Brookes, that that estimable man had been compelled to sell his dearly-cherished museum, and, notwithstanding, died in a state of abject poverty and misery. Yet this College, like the College of Physicians, called for support against the inroads of medical reform! Thirdly, as to the Apothecaries Company, it was a startling fact, that in the year 1833, the entire regulation of medical education in this country devolved on that body. So far as he (Dr. S.) was a judge, it had rendered considerable service to medicine, but he must add, that the legislature ought not to have placed it in the power of any corporation to exercise the extraordinary legal powers which the Worshipful Company held. Much, however, as the Company had effected in the way of improving medical education, the scale of acquirements which were demanded of candidates, was by no means what they ought to possess. Then the manner in which they employed their legal powers was most improper. Instead of protecting the public and doing justice to the profession, by prosecuting quacks and druggists who ignorantly practised medicine, they had, apparently with a spirit of most unworthy jealousy against members of other medical institutions, caused a selection of victims for prosecution, who were fully qualified by attainments and ability to practise medicine, and the whole profession, as well as himself, had seen legal proceedings instituted by the Company, which all men ought deeply to regret. ("Hear," "hear," "hear," *from all parts of the room.*) The system of apprenticeships, too, was highly prejudicial. The occupation of a medical apprentice ought not to be what it was. He ought not to be the mere servant of his master, but should be employed in acquiring a knowledge of those branches of science which would tend to make him in after life a useful member of society, and a source of credit to the profession. He (Dr. S.) had to name one more ground for legislatorial interference, and that was the entire want of legal control over the knowledge of the druggist. The legislature ought to insist upon proofs of qualification from those persons who at present often perpetrated the utmost mischief by meddling with the practice of physic. Such was a brief enumeration of the present state of the profession as regarded its government, and he had now to submit to the Society his views as to the remedy which was most likely to remove the abuses complained of, and ensure to the country the establishment of a sound medical constitution. Much discrepancy of opinion had existed on the subject, but the remedy was, in his opinion, a very simple one. All which it behoved the Society to do, was to petition parliament for the assimilation of the whole profession into one great medical Faculty. All persons practising medicine or surgery in England should belong to this body. *(Hear, hear, hear.)* Some persons would be ready to say, "What! would you have physicians, surgeons, and apothecaries, all sitting together in one Faculty?" To be sure he would, if they were fitted to do so by their acquirements, for that must now be the standard of admission to the profession. At the head of this Faculty should be placed a council, elected by vote of the whole members, and to that council should be entrusted the government of the profession. The universality of the suffrage in this election was an important feature, for while a high standard of education was exacted from members, the moment a candidate proved his qualification by the possession of knowledge, he should become entitled to vote at the election of the governing council. *(Hear, hear.)* In that council no opportunity would exist for the exercise of selfish feelings. Its duty would be that of regulating the extent of medical knowledge to be demanded from candidates for the diploma of the Faculty, and the ordainment of laws for the general regulation of the profession, which would thus become a united body, having one hall, one museum, one library, and one community of sentiment. A court of honour should also be appointed by the Faculty. The great hall of the institution should be open to the entire profession. All should have the advantage of assembling in it. If they had possessed

such a place now, the members of the Society would not have had to meet in a private room that night to discuss their wants *(hear, hear)*, nor a few nights since to consider the conduct of the officers of the Aldersgate-Street Dispensary. *(Hear, hear, hear.)* With regard to the mode of obtaining a full investigation of the state of the profession, it was his decided opinion that the Society ought to seek for the appointment of a parliamentary committee, and not a royal commission. The only argument which he had yet heard in favour of the latter, was grounded on the appointment of the Royal Commission in 1826, to investigate the state of the Scotch Universities. But what had been the result of that commission? Why, although the commissioners had really desired to do their duty, more than seven years had elapsed without any report having yet been made by them,—such were the obstacles which persons interested in the persistence of things as they are, had the opportunity of throwing in the way of Royal Commissioners. Such a body would, in fact, stand in the way of medical reform. A parliamentary committee would not be thus impeded in its labours. It would be an independent tribunal, uninfluenced by corporations, before which any person might go who had information of importance to the committee. It was but fair to the profession to grant it. The profession meant to ask for no more than justice; they should not even trouble parliament to frame laws for their internal management, but merely require the appointment of a Faculty upon a sound basis. Were they but thus united in one great and uniform mass, the profession would unquestionably rise in the estimation of the public, and achieve for itself most advantageous results. Genius would then be unfettered by bad laws, disburdened of the impeding weight of grievous monopolies, and would shed around itself and over the whole circle of Society, a truly brilliant and invaluable light. *(Great applause.)* He would conclude by moving the following resolution:—

"That this Society participates in the "feelings which so generally pervade the "members of the medical profession, as "to the necessity of a parliamentary inquiry into the state of the profession in the "three kingdoms, with a view to its being "placed on a footing more suited to the "advanced state of medical science, as "well as more consonant with the liberal "spirit of the present age."

Mr. Costello rose to second the resolution. He had long contemplated the subject of medical reform in England, and had centred his views on a plan for placing the profession on an immoveable basis of respectability and independence. That plan was similar to the constitution of the medical profession in France; but he had since communicated with Dr. Sommerville on the subject, and was now quite satisfied that the union of the profession in one body, governed by a council elected by free suffrage of the members, was the plan which ought to be adopted. *(Hear, hear.)*

Mr. Dermott was sure that nothing but the system of concours, as it existed on the continent, could secure a proper station for merit.

Dr. Epps said he had been a medical reformer all his days *(hear)*, and was glad that even at the eleventh hour reform was at hand. Medical men, however, had themselves been its enemies, for if they had done their duty, the question would have been settled long ago. They did not do it in Scotland; the Royal Commission had been hindered by the medical men in the universities in every way. He had given evidence of abuses before it, at the risk of his ruin. Reform had been agitated in this Society these three years, and had never before met with encouragement. A little association of medical reformers existed in London, and had done everything in their power to aid the cause, and he would take the opportunity of stating, as a proof of the liberal feelings of the Government on this subject, that having asked, through Mr. Hume, for the privilege of sending letters, begging for information on medical matters, free of postage, to all the universities in Europe, the liberty had been willingly granted them. He (Dr. Epps), as secretary, had sent to a hundred and fifty of those institutions, and had received answers from many of them,—some highly important, and intended to be laid before Parliament. The association expected, on the return of Mr. Hume to England, to obtain permission to frank similar letters everywhere. The last days of quackery, he trusted, were now near,—not alone that of charlatans, but the quackery of many regular medical practitioners. *(Hear, hear.)* He must praise the Apothecaries Company for what it had done, though he was willing to overturn it to-morrow, for it was not in accordance with the wants of the times.

The resolution was then put and carried unanimously.

Dr. Copland rose to move the second resolution. He was a reformer, he said, ten years and a half ago, and gave proof of that in an article in the *Medical Repository*. He ranged himself against the present system with willingness. It did

nothing for the profession. In fact, the only persons supported by the existing corporations, were the quacks. He cordially joined in deprecating the rejection from the portals of the College of Physicians all men who had not graduated in particular places. It was said by one gentleman that we were now all reformers, while formerly the reformers were a minority. If any one should complain of that it was he (Dr. C.), for he had long since hoisted the standard of reform, and been left alone with it in the field. However, he ascribed the present demonstration for medical reform to the success of parliamentary reform, and he hoped for equal success to the new demand. He fully coincided with the opinions expressed by Dr. Sommerville. There should be but one great Faculty and Council, having the objects named by Dr. S., and having power to suppress the degradations to which some regular practitioners subjected the profession, when, for instance, they openly sold quack medicines. (*Hear, hear, hear.*) Medical ethics, also, sadly wanted reducing to a code. He should conclude by moving,—

"That the grievances at present so generally complained of by the members of the medical profession, appear to the Society in a great measure to arise from the existing constitution whether by charters, statutes, or by-laws of some of the medical incorporations to which the duty of regulating the profession in this country has been entrusted.

Dr. Epps, with a few brief remarks on the impropriety of demanding an oath of belief in the "thirty-nine articles" from all candidates at the College of Physicians, seconded the resolution.

Mr. Greenwood rose and addressed the society at great length, on some points in (we believe) the history of the existing colleges and hall, but scarcely a perfect sentence of his speech reached the lower end of the room. He argued, finally, as we understood, in favour of the views expressed by Dr. Sommerville.

Dr. Jewel said he wished to raise his voice in behalf of that scandalously-used branch of the profession the accoucheurs, whose particular department of science, midwifery, had yet received no kind of legislative protection, and who were insulted in the most gross manner by the regulations of the College of Physicians. (Dr. Jewel was proceeding to make some remarks on the by-gone letters of Sir Anthony Carlisle against men-midwives, but he was stopped by the chairman, on the ground that Sir Anthony was not present to defend them.)

The second resolution was then put and carried unanimously. A gentleman previously moved, as an amendment, that the words "imperfections of the several corporations" be substituted for "the existing constitution," &c., but no person was found to second the proposed alteration.

Dr. Webster rose to move the third resolution. The society, he said, was deeply indebted to Dr. Sommerville for the clear and able manner in which he had introduced the subject. He (Dr. W.) however, did not wish to destroy the College of Physicians, but rather to strengthen it, and see it become a powerful and respected body. He wished, in fact, to see the three corporations properly reformed, and still have the power of making, severally, physicians, surgeons, and apothecaries. The College of Physicians should still consist of Physicians, but it should include *all* physicians.*

* These expressions excited no little surprise. They sounded, in fact, very strangely in the speech of a gentleman who was taking a prominent part in the business of the evening. Indeed, on some expostulation being subsequently offered to the Dr., he was himself so surprised at their import, that he could not admit he had given cause for the interpretation put on them. The Dr., however, had clearly forgotten his expressions. The force of habit led him unconsciously to reiterate opinions which he meant to have discarded. There are still a few gentlemen existing who do not see how physicians, surgeons, or apothecaries, are to be created, if there be no "physicians," "surgeons," or "apothecaries," to manufacture them. An amusing instance of such a man came to light at the west end of town a short time since. The "argument" adduced by him may be acceptable in some quarters. Some gentlemen who were electors in the Tower Hamlets waited on one of the members for that district to request his support of medical reform in the House of Commons, whenever the subject might be brought forward there. The applicants were attentively heard to the end of their case, and considered, from a seeming acquiescence of the hon. member, that they had made good their ground, and gained over at least a voter, if not an advocate, in their cause. The impression, however, was too hastily formed, for when the senator spoke he commenced with the following suspicious questions:—"Well, gentlemen, after all these explanations, what am I to understand? I have heard a mass of things; in fact, my brain is almost be-

There wanted, indeed, the broom of reform to sweep away many medical abuses. Amongst which was the thirty-nine-article regulation at the College of Physicians. Let it be understood, however, that he meant to condemn bad laws,—not for a moment the individuals who administered them. In fact, though there were many persons knocking at the doors of the College of Physicians, there were many within responding to the sounds who would be glad to open the doors if it were possible. He would conclude by moving,—

"That the charter of the Royal College "of Physicians of London, having been "granted prior to the union with Scotland and Ireland, and at a period when "the practice of medicine was in many of "its essential features different from that "of the present day, and its jurisdiction "being virtually limited to physicians "practising within seven miles of London, is inadequate to the important objects for which the charter was framed; "and the by-laws of the College establishing an arbitrary distinction of practising physicians into two classes, or "grades, has proved, and if permitted to "exist will continue to be, a source of "jealousy, where the interests of the public require the utmost cordiality and "harmony."

Dr. Ryan seconded the resolution, for he was a radical reformer, though not an ultra-radical. The College of Physicians was full of abuses, and had so insulted the licentiates, that no licentiate could fail to feel himself personally offended by its conduct. They could not go to their own College without an invitation from the Fellows, while the examiners of candidates consisted of men who were younger than the candidates themselves,—of men who were not known five doors from the steps of the College,—and who conducted themselves towards candidates in a most ungentlemanly and disrespectful manner.

Dr. James Johnson heartily concurred in one proposal of Dr. Webster, though, with regard to the knocking at the doors, he could declare, as a near neighbour, that there had been no knocking there for the last six months at least. The point on which he agreed with Dr. Webster was this,—that the College of Physicians should be "strengthened," not by granting it additional powers, but by adding to it the great body of surgeons and apothecaries, and thus forming one great medical faculty.

Mr. Costello was surprised at the remarks of Dr. Webster. It was somewhat preposterous, in the present day, to hear the doctrine of distinctions in the profession advocated. A distinction once existed between physicians and surgeons, but the disclosures of physiology had long destroyed that. (Dr. Webster here observed that he did not mean to advocate the system of distinctions.) He (Mr. Costello), whenever he heard grades in the profession defended, was reminded of the reply of the French King to the physician who came to his majesty and said, "Sire, the surgeons encroach on our domain. You must build up a wall of brass between us."—"So, my friend," said his majesty, "I will, if you will tell me on which side of it I am to place the patient." (*Hear, hear.*)

Time had now so far advanced, that on the motion of Dr. Johnson, the further consideration of the question was adjourned to Saturday, the 30th inst.

After the motion of adjournment, Dr. Sommerville read the remainder of the resolutions which are to be submitted to the Society at its next meeting. They were as follows:—

IV.

"That the privileges conferred by the "charter of the Royal College of Sur"geons, limiting the numbers of the

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wildered by your accounts of opposing interests, monopolies, and what not. Now pray what do you want? What is it you want? What law do you require? What are you going to Parliament for? If you can't settle these great differences amongst yourselves, how can Parliament settle them for you?" To these hastily-offered interrogatories it was replied that they wished to abolish by law the absurd distinctions which exist in the profession, and to unite all ranks in one Faculty of Physic. "Oh by Jove!" said the astonished senator, "are you mad? Have you lost your wits? Was there ever before heard such a wild-goose scheme? Why, gentlemen, I put it to you now, I put it to you,—*abolish distinctions?* Good heavens, how is it to be done? Is not the physician the physician, the surgeon the surgeon, and the apothecary the apothecary? Isn't the surgeon the surgeon, and the apothecary the apothecary, and the physician the physician? Isn't—I ask you, gentlemen—isn't the apothecary the apothecary, the physician the physician, and the surgeon the surgeon? Abolish these distinctions? Pooh! Nonsense! How can we do that? I must abolish myself I see. I shall be happy to do anything *reasonable* for you, gentlemen, but I can't support that. Good morning," and off he went.

" members of the council to twenty-one, " and giving to these individuals the " power of appointing others of their own " members, whose appointments are to " continue for life, and to whom is in- " trusted the examination of candidates " for the diploma of the College, and by " whom the regulations relative to their " education are framed, is highly objec- " tionable, and subjects the character of " the council to the charges of exclusion, " self-election, self-perpetuation, and irre- " sponsibility.

V.

" That the act of the legislature by " which the exclusive privilege of be- " coming the general Medical Practi- " tioners of England and Wales, under " the designation of *Apothecaries*, being " committed to a trading company, is de- " rogatory to the character of the profes- " sion, and injurious to the interests of " the public.

VI.

" That the exemption of chemists and " druggists from all control as permitted " by the act of 1815 is prejudicial to the " community; that it is highly expedient " that all chemists and druggists should " undergo a proper course of education " and examination, and be duly licensed " for the dispensing of medicines.

VII.

" That any person assuming the title or " designation of a medical practitioner, or " acting as such, without being duly li- " censed, should be subject to penalties, " or information before the ordinary law " tribunals.

VIII.

" That in the opinion of this Society the " evils now complained of will be reme- " died most effectually by the constitu- " tion of *one* FACULTY, or ACADEMY of " Medicine, which, under the direction of " the legislature, shall preside over, and " regulate, the education and practice of " the medical profession throughout the " United Kingdom.

IX.

" That the committee of the Society be " instructed to prepare petitions to the " legislature, embodying the principles of " the preceding resolutions, and that the " prayer of the said petition shall express " the wish of the Society that a committee " of the House of Commons may be ap- " pointed, to inquire into *the present* " *state of the Education and Practice of* " *the Medical Profession throughout the* " *Empire*."

Traité des Maladies des Enfans Nouveaunés et à la Mamelle; fondé sur de Nouvelles Observations Cliniques d'Anatomie Pathologique, faites à l'Hôpital des Enfans-Trouvés de Paris. Par C. M. BILLARD, D.M.P. Paris, 1833. 8vo. pp. 728.

OUR knowledge of the diseases of children, and particularly of infants at the breast, has not, it must be confessed, by any means kept pace with the progress of medicine in various other branches of the art. For this several reasons may be assigned, partly depending on the nature of the subject, and partly on local circumstances. Thus, for a long period, these diseases were either not studied at all, or, for the most part, were attributed to causes far differing from the truth. Dentition, the progress of growth in infancy, and worms, were, and even yet are, generally regarded as nearly the sole causes of these affections.

Very few countries of Europe afford any special opportunities for studying the diseases of children. We believe there is no *hospital* in the United Kingdom especially destined for the reception of sick infants of a tender age. Besides this, the great difficulty which practitioners invariably experience in obtaining permission to examine the dead body, must (as long as it continues to exist) ever retard pathological knowledge in England. The great writer on diseases of children in Germany was not himself physician to an hospital of children; and in Italy, the only institution of this kind has not produced anything very remarkable.

The case is quite different however in France. Paris has produced numerous writers on the diseases of children, and contains, moreover, two splendid hospitals, solely appropriated to the reception of children, of every age up to fifteen years. The *Hôpital des Enfans Malades* contains about 500 beds, and receives children from three to ten years of age; the *Enfans-Trouvés* receives yearly from 5 to 6000 infants, and when we consider that more than one-third of this number yearly die, we shall have some idea of the opportunity there offered of studying disease, particularly in a pathological point of view.

It was from this source that the author of the work now before us derived his knowledge of the diseases peculiar to infancy, and he was there enabled to collect a volume of observations, in which the relation of the symptoms and morbid appearances are more clearly laid down and established than in any other book of the kind with which we are acquainted.

But the backward state of our knowledge of the diseases of infancy, is not to be referred solely to the cause just mentioned. There are others which are intimately connected with the subject, and which often place the physician in the same embarrassing position as the veterinary surgeon. In fact, as the little patient is, in most instances, unable either to give utterance to his sensations, or express his wants, desires, and pains, otherwise than by a few simple gestures, the physician is reduced to the necessity of examining and recording in his memory various phenomena which it would have been unnecessary to notice in an adult, and in numerous cases of drawing his diagnosis from them.

The operation of this cause may be traced to the writings of many authors on diseases of children, who have fixed their attention almost exclusively on some one particular symptom, which they have constituted into a disease, and against which all their therapeutic resources have been directed, without any attempt made to ascend to its cause. This fault is remarkably prominent in the treatise of Underwood, and hence we have so many chapters dedicated to marasmus, weakness of new-born children, vomiting, diarrhœa, gripes, obstruction of the mesentery, convulsion, &c.

The growth of the fœtus in utero has been, happily enough, likened to that of a vegetable, and this comparison has pretty generally led to the idea that the embryo, not enjoying an independent existence, is unaffected by independent disease, and is liable to suffer only from those which are transmitted to him by its mother's blood. But this is a most erroneous idea. The researches of modern pathologists, amongst whom we may particularly distinguish M. Billard, prove that the fœtus in utero is liable to various kinds of inflammatory affection of the different viscera,—to exanthematous disorders, independent of transmission through the mother; to certain general cachexia, as scrofula, tubercular phthisis,—to the formation of urinary and other calculi,—in short, to almost all the diseases which attack the adult, besides many others which are the result of its peculiar organization, and of the physiological changes resulting from the transition from intra-uterine to extra-uterine existence.

In this point of view we see how readily the superficial observer may be deceived in his diagnosis of the diseases of children. An infant refuses, perhaps, to suck, is irritable, and loses flesh; this would by many be attributed, without further consideration, to the bad quality of the milk, and a change of nurse ordered; but an immense number of observations made at the *Hopital des Enfans-Trouvés*, proves that in many cases of this kind the loss of flesh, &c., depends on some organic disease with which the infant was affected before birth, and which is the more difficult of detection by an ordinary observer, as the fever, cough, &c., which accompany inflammation of the chest and belly, are usually wanting altogether in infancy.

But, rather than be discouraged by the difficulty of the subject, it is the more incumbent on us to pay attention to this branch of medicine, if we may so call it, when we reflect on the frightful mortality accompanying diseases at an early age. Dr. Clarke estimates, that up to the age of ten years, one half of the children which come into the world, die. In London, from the years 1760 to 1799, the number of children who died was not very short of one million; and, according to Formay,* during a space of fifteen years, out of 76,331 children who were born at Berlin, not less than 40,000 perished.

We shall not now seek to estimate the causes of this enormous mortality, which depends partly on the tender organization of the young being, his physical education, his tendency to certain fatal diseases, as small-pox, scarlatina, &c., and partly on

* Medicinische Topog. von Berlin.

the operation of various external agents by which he is constantly surrounded. We would rather point out, as briefly as possible, certain analogies between the diseases of children and of old age, which gives some colour of truth to the saying, "The extremes of life meet." Weakness, though depending on different causes, is one of the most striking characteristics of children and old age; hence the diseases of individuals at an early and a late period of existence, are often masked, and not clearly defined, being in some manner modified by a prostration of strength, and also apt to pass from an acute to a chronic state.

From a peculiar state of the circulation and respiration in the infant, we might suppose its chest affections would have some particular characteristic; but it has been remarked that latent pneumonia is almost as peculiar to the old man as to the child, and that pulmonary catarrhal affections are equally common in infancy and old age; indeed we may assert, that the greater part of children and old people who die are carried off by those two affections.

The predominance of the venous over the arterial system is another character common to the young and the old; and as life commences by the development of the veins, so this system predominates towards its termination. The ganglionic and lymphatic apparatus are also the frequent seat of disease in the aged and the child; but the form of the affection differs considerably according to the period of life. In infancy those diseases commonly terminate in tubercles, or the deposition of a lardaceous tissue, while in advanced life they give rise to cancer and scirrhus. Perhaps we might say that this latter disease is the scrofula of old age. Finally, it may be remarked, that calculous disorders are more frequently seen at the extremes of life than during adult age.

But to return to the work before us. The system of M. Billard is essentially pathological, and his observations leave very little to be desired upon that point; hence he divides his work according to the different apparatus of circulation, digestion, respiration, &c.; examines the several alterations to which the parts of each apparatus are liable, and endeavours to connect the symptoms observed during life with the phenomena discovered after death. This, without doubt, is the most perfect method of investigating the nature of disease, and has led to happy results in the hands of our author. We have, however, to express our regret that some portions of the work are treated in a manner which evidently shows that the author was hurried in its composition, and that he did not defer the publication of his opinions until the experience of a few more years had given them additional weight, particularly as regards the treatment of disease.

The first few chapters of the "Treatise on the Diseases of New-born Children," contain an account of the manner in which the remnant of the umbilical chord is detached, and of the size and weight of the infant at birth, which latter the author estimates at from five to five and a half pounds. Chapter VI. contains an excellent exposition of the means of expression in the infant, including the indications which may be drawn from its cry and physiognomy.

In speaking of the pulse, the author remarks that although it is usually more frequent in the child than in the adult, this observation is subject to numerous exceptions, and he assures us he has often found the pulse of the infant as slow as that of many old people in whom the pulsation of the arteries has been rendered slow by some organic disease. In order to form an estimate of the frequency of the pulse in infants, the following observations were noted. 40 children from 1 to 10 days old were examined; they all seemed to enjoy perfect health. In 18 the pulse beat less than 80 in the minute; in 2 it beat 86; in 1, 89; in 4, 100; in 1, 130; in 10 from 110 to 120; in 2, 145; in 2, 150; and in 1, 180. Thus in 40 children one-half the number presented nearly the same rate of pulse as the adult. Amongst 35 children of from 1 to 2 months old, 14 presented 80 to 85 pulsations; 11 from 90 to 120; 7 from 125 to 130 pulsations; and 3 from the latter number up to 150; at this age also a considerable number of infants presented the pulse of the

adult. But in infants from 3 months up to 12, the pulse was constantly above the standard of the adult. Hence it would appear that the pulse of the new-born child is often very little above the standard of the adult, but that it acquires frequency as the child advances in age up to a certain period.

The diseases of infancy are, as we before noticed, investigated by M. Billard according to the organs which they affect; he commences by pointing out the principal malformations to which the organ is subject, and indicating the symptoms by which the existence of these may be inferred at the time of birth; the affections of the skin, cellular tissue, digestive apparatus, respiratory and circulatory apparatus, are next successively examined, and the work terminates with a brief account of the alterations by which the systems of locomotion and generation are most commonly attacked. The treatment applicable to each affection is also pointed out in a brief manner. This is the only part of the work to which we cannot refer with praise; for as the author was unable to derive any aid from his own experience, the therapeutical portion of his treatise is merely a resumé of the treatment followed by M. Baron at the *Hôpital des Enfans-Trouvés.*

Diseases of the cellular tissue are rare in childhood. One of the most remarkable and fatal is the endurcissement, or hardening of the cellular tissue,—*skin-bound*, as we call it in England, from the tense state of the integuments. The disease was first described, with any care, by Denman and Underwood, but the nature of the disease was very imperfectly understood by the latter author. The subject was then investigated with more success by Hulme, Auvity, and Andry; by Went and Henké in Germany; and by Liberali and Paletta in Italy. The greater part of writers distinguish it into acute and chronic forms, but M. Billard divides the disease, after Denis and Duges, into œdema of the *cellular*, and œdema of the *adipose*, tissues.

The slightest anatomical investigations show how inapplicable the term "hardening of tissue" is to this disease, for when the serosity which distends the cells of the tissue is pressed out, the cellular tissue is found to preserve all its natural suppleness and elasticity,—in a word, to be perfectly free from any organic change. We shall not here detail the symptoms of this disease. They are perfectly well described by Underwood, and all authors who have written on the subject. We shall rather point out a few circumstances on which the researches of the present writer seem to throw additional light.

He commences by asking the question, Does the infiltration of the cellular tissue, which causes endurcissement, differ specifically from the œdema which, under certain circumstances, attacks the limbs and trunk of adults? Breschet regards this œdema as specific, and supports his opinion by the chemical experiments of M. Chevreul, who found a peculiar colouring matter in the serum of infants affected with this disease, and also observed that the blood contained a matter which communicated to the serum the property of coagulating spontaneously when separated from the fibrin. But Billard has observed, with much judgment, that all the infants whose serum had been examined by the French chemist, were at the same time affected with icterus, and, in further experiments, found that the serum of healthy children coagulated as quickly as that of an infant skin-bound. Besides, a simple experiment proves that the serum does not coagulate in the cellular tissue, for the serum may be extracted with very slight pressure when an incision is made along the limb.

Hence the author concludes that skin-bound, or hardening of the cellular tissue, is an œdema quite analogous to that which attacks adults and old people who are affected with certain diseases of the lungs or heart. Various causes have been assigned to this disease by different writers. Hulme and most authors after him have pointed out a congestive or inflammatory condition of the lungs as the principal cause. The action of cold on the body has not been forgotten. Paletta regards the liver as playing a principal part in its production. Breschet assigns the persistence of the foramen ovale, and the disposition of

the serum to coagulate. Finally, M. Baron describes the disease as a simple œdema, symptomatic of some obstruction to the course of the blood in the heart, lungs, or great vessels.

A comparison of the above-mentioned causes, with the facts which we daily observe, shows how ill the greater part of them are founded. As to the action of cold, though its predisposing influence cannot be denied, we cannot by any means regard it, with Auvity, as the proximate cause of the disease. In the year 1826, 3392 infants were received into the *Enfans Trouvés*. Of these, 240 were attacked with endurcissement, and of them 43 were taken ill during the months of May, June, July, and August. Of all the diseases which accompany schlerema, jaundice is the most frequently observed, but we cannot find that the state of the liver presents any circumstances which could have the least influence on the disease, as Paletta imagines. In a great number of cases the liver was healthy; in others, the changes observed were equally found in various other diseases as well as in endurcissement. Congestion, or inflammation of the lung, is equally rejected by M. Billard as a cause of this disease; out of 77 children examined 43 had their lungs perfectly healthy. This is quite sufficient to overthrow the theory advanced by Hulme. The opinion of Breschet is also unsupported by facts; if indeed the foramen ovale be often found open in children affected with schlerema, it is because this aperture is not usually closed before the first few days of life have passed over,—the period at which this disease most commonly attacks children; besides, in the 77 children above noticed, 40 were found to have the foramen completely closed.

The most important circumstance to be noticed in the pathology of this disease, is the general congestion of blood in the venous system, which, joined to a suspension of cutaneous, and, perhaps, of pulmonary transpiration, constitutes, in the author's opinion, the chief source of the malady. The therapeutic indications may be briefly enumerated. They consist in, 1st, combating the general plethora by the abstraction of blood; and, 2ndly, exciting the skin to a proper action by frictions, &c. Paletta, who asserts that he cured 42 out of 43 cases, advises the application of leeches to the extremities, the internal administration of kermes, and the employment of warm-baths.

Affections of the stomach and of the intestinal canal form a very great part of the various diseases from which infancy suffers. Amongst us these affections are too often attributed to mere derangement of function, and the essential part of the disease, the organic affection, is neglected. However, the stomach of the infant frequently rejects the milk which it receives, in an undigested state, and the symptoms of deranged function become manifest; but in many cases also the vomiting depends on an inflammatory state of the stomach and intestinal canal, which the child has been affected with in utero, or has acquired shortly after birth.

Inflammations of the gastro-intestinal canal are divided by the author into erythematous, inflammation with altered secretion, follicur, and inflammation with disorganization of tissue, including gangrene and the ramollissement of the mucous membrane first described by M. Cruveilhier. The symptoms of this latter affection are generally those of a violent gastritis; the epigastric region is tense and painful:—

"There is constant vomiting; the face bears an expression of constant suffering; the extremities are cold, and the pulse is quick and irregular; the thirst is unextinguishable. These phenomena are quickly followed by a state of prostration and insensibility, disturbed every now and then by the recurrence of pain and agitation; and the patient dies in a period differing from six to fifteen days, worn out by want of sleep, pain, and constant vomiting. After death, the traces of acute inflammation of the mucous membrane are usually found in the neighbourhood of the great curvature; the membrane is excessively soft, and the submucous tissue is infiltrated with a great quantity of serous fluid, which constitutes the peculiarity of the disease, giving the membrane the aspect and consistence of whitish jelly."

The treatment of this disease, as of gastritis in general, is, of course, strictly antiphlogistic, and it is unnecessary to notice it here. We prefer quoting the passage with which the author terminates his remarks on inflammation of the stomach:—

"It is important to notice that these inflammations do not always give rise to symptoms as clearly marked as in the observations already detailed in this article. In some cases they are masked by other diseases; in others only a few of the symptoms assigned to them are to be recognised; and, finally, in some circumstances, they become developed in so latent a manner, that it is almost impossible to diagnosticate them, and they consume the life of the little patient without the knowledge of the physician. However, we should always suspect some affection of the digestive organs, however slight and unimportant the symptoms may be. Every time that nutrition is interrupted, the digestion becomes troubled, and the child gradually wastes."

The activity of various morbid causes applied to the intestinal canal, and the great extent of surface presented to their action, explain the frequency of affection of the bowels in children. The intestinal tube is considerably injected at the time of birth, and readily becomes the seat of congestion as soon as the circulation is embarrassed in the thoracic or abdominal vessels: hence the great tendency to inflammation, which is further favoured by the functional activity of the digestive tube in the infant. These affections, as the author remarks, do not always present at the commencement a well-marked inflammatory character. In an early stage they are often but simple congestion, terminating, however, sooner or later, in true inflammation. The symptoms of these diseases are generally local in young infants, where marks of general reaction are very seldom noticed; hence the chief attention of the physician should be directed to the derangement of the digestive functions:—

"Vomiting (says M. Billard) frequently takes place in enteritis, with this peculiarity, that the rejected matters are usually yellow, and that it does not come on immediately after the taking of food or drink; diarrhœa generally accompanies the vomiting; it is green or yellow, and very seldom serous; the belly is painful to pressure, ballonné; the tongue is red and dry, and the integuments are warm, though towards the termination of the disease they become extremely cold. As these symptoms come on, the child falls into a state of perfect marasmus; the face falls in and takes the aspect of old age; the skin becomes dry and wrinkled, and the child dies off quietly, sometimes after several weeks of suffering."

As the non-existence of general fever is apt to throw some obscurity over the diagnosis of abdominal disease in infants, so the absence of cough and expectoration may often lead us to neglect the chest when that cavity is the seat of inflammation sufficiently intense to compromise the life of the child in a very brief space of time. The pneumonia of infants at the breast presents characters peculiar to it, and which distinguish it from that of adults. Instead of arising from some irritation developed in the pulmonary tissue by atmospheric or other cause, the pneumonia of young children is the result of the congestion of blood in the organ. M. Billard regards the fluid in this case as acting like a foreign body, producing irritation, and concurring to form the change of tissue called "hepatization." Hence, pneumonia in children is more frequently observed at the back part of the right lung, where congestion most frequently exists, and is usually circumscribed; and the pleura, which usually inflames, together with the lung, in the adult, is unaffected in the child.

The symptoms of pneumonia, though often obscure, are yet, in most cases, sufficient to characterise the disease with certainty; the following excellent resumé of the symptoms is given by the author in the chapter which treats of thoracic affections:—

"*Respiration.*—The breathing is embarrassed, short, and is not heard at the diseased point of the lung; the chest, when percussed, gives a dull sound; there is not always the râle of pneumonia."

This is peculiarly the case when both lungs are attacked at the same time, a circumstance which often obscures the diagnosis, as the difference of sound on the right and left sides will not strike the observer, each being equally dull.

"The *cry* of the infant is incomplete, and generally smothered, the sound produced during inspiration being marked.

"There is sometimes cough, but as this symptom is frequently absent in very young children, it can only be regarded in a secondary point of view. There is no expectoration in infancy, and we are equally deprived of the assistance derived

from this symptom in adults. The same observation applies to the pain in the side; and vomiting of blood is extremely rare.

"*Febrile Re-action.*—This does not exist in very young infants; but as the child advances in age it becomes sufficiently manifest; the pulse is often small and obscure; the skin cold and livid; and the limbs are œdematous."

Such are the general symptoms of pneumonia in infants at the breast; but every practitioner of any experience must be aware how apt they are to vary according to the constitution or habits of the child, its age, and a thousand other circumstances which can only be appreciated at the bedside of the patient. The treatment recommended by the author, is that generally followed in the hospitals of Paris. Two, four, or six leeches are applied to the chest as soon as ever the absence of respiratory sound, and matity upon percussion, indicate pulmonary congestion or inflammation; then the child is placed upon strict diet, or fed with milk and water; if the inflammation persists after the abstraction of blood, dry cupping-glasses are placed on the chest, or a blister to the arm; derivatives, as blisters, sinapisms, &c., are applied to the lower extremities in order to relieve the suffocation, and an emollient clyster is given every evening.

Such are the simple means with which the French physicians combat inflammatory affections of the chest. Some time ago we saw the white oxide of antimony administered in the dose of from ten to sixty grains daily, and it certainly had the effect, in the hands of MM. Guersent and Baudelocque, of abating the inflammatory symptoms very considerably, without producing nausea, purging, sweat, or any other sensible evacuation. We have seen great numbers of children attacked by pneumonia, during or after small-pox or measles, treated in this way, and the result seems to be more fortunate than where the affection was combated by antiphlogistic measures. We do not remember a single instance in which a purgative was administered as a means of derivation on the intestinal canal. As the bronchiæ are seldom engaged in the inflammation, it is unnecessary, and even injurious, to administer to the child the syrup of ipecacuanha, squill, or other such remedies, in order to provoke the expulsion of mucus, for the young infant does not expectorate.

We pass over the chapters on pleurisy, a disease not frequent amongst children, and hooping-cough, which is carefully described by the author, to notice briefly his observations on *the obliteration of the fœtal openings in the circulatory system.*

A considerable number of infants, one day old, were examined; in fourteen out of nineteen the foramen ovale was completely open; in twenty-two children of two days of age, fifteen had the foramen ovale free; in twenty-two of three days old, fourteen presented the same permanence of the communication between the right and left auricles; in fifteen of these children the ductus arteriosus was open. In twenty-seven infants of four days old, seventeen presented the permanence of the foramen ovale, and in six of the latter the opening was very large, and distended with blood.—Children of five days. Twenty-nine of this age were examined. The foramen was open in thirteen cases only, and in some moderately so. In children of eight days old, the closure of the foramen begins to be manifest; twenty of this age were examined, and the orifice was found open in five cases only. Hence we see that, most commonly, the communication of blood between both auricles is free, up to the eighth day, and this state may remain even to twelve, fifteen, or twenty-one days, without the child exhibiting any accident whatever. The period of obliteration is very variable, and takes place in the following order:—The umbilical arteries are first obliterated, then the umbilical vein; the ductus arteriosus now closes, and, a day or two after it, the foramen ovale. From the above statements we may also conclude that the persistence of the foramen ovale, for the first few days of life, is an ordinary phenomenon, and should not be attributed to any morbid condition of the circulating system.

Various affections of the nervous system and membranes inclosing the brain, are to be met with in children. Of these, perhaps, the most remarkable is con-

genital hydrocephalus, which the author attributes to some inflammation of the membranes during intra-uterine life, or to a certain nutritive hypertrophy of the brain itself; he also thinks that all treatment of the disease is perfectly useless, and that we should confine ourselves to a few simple precautions of diet, &c., the chief object of which would be to avoid cerebral excitement.

Besides inflammations, there is an affection peculiar to the brain of infants, which M. Billard denominates "non-inflammatory ramollissement," and which, according to him, is evidently the effect of congestion in the organ:—

"This state of softening exists sometimes only in one lobe, at others in both lobes together; in many cases the whole cerebral substance is destroyed and reduced into a black soft mass, mixed with clots of blood and pulpy flocci; the membranes are always sound, notwithstanding this extensive destruction of the brain. The ramollissement of which we speak, is ordinarily the result of the mixture of the cerebral pulp with extravasated or infiltrated blood, but, in some few cases, various points of the brain have been found softened, though no effusion of blood into its substance could be traced. The symptoms of this affection are, an excessive degree of prostration, congestion of the integuments, pulmonary congestion—in a word, the greater part of those that indicate congestion of the brain, which is the essential cause of the disease."

The other affections of the brain in children are successively treated by the author, and we regret that the length to which our observations have already gone, will not permit us to analyze his excellent account of them. On the whole, we regard the work before us as a most useful addition to those which have preceded it on the same subject, and is peculiarly valuable from the care which has been bestowed in referring the phenomena observed after death, to the several symptoms noticed during life. This is a task which the author has executed in a manner worthy of the school in which he was educated, and which will for a long time render his book almost a standard work, notwithstanding some few defects which we have not thought it worth while to mention in the present notice.

THE LANCET.

London, Saturday, November 30, 1833.

Although the defects in the medical constution of this country cannot fail of being obvious to the most careless observer, yet it would appear, from the writings of the agents of corruption, and from the discussions of some inexperienced members of the profession, that the remedies are by no means simple or easy of application. Unfortunately it has been too much the fashion to view the question of medical reform, as one relating to mere privilege with respect to medical practitioners themselves, thus forgetting entirely that the great end to be attained by medical education, medical examinations, and medical degrees, is the conservation of the public health, in which consideration is involved the chief physical source of the moral and intellectual enjoyments of every civilized nation.

In condemning, however, both the hypocritical and the ignorant disputants on medical politics, it ought to be recollected that with respect to philosophical laws and practices, theory has been their only guide, —experience at the same time having, as invariably, illustrated those things which ought to have been shunned rather than respected and adopted. Argument to be sure has been employed somewhat profusely, in the pages of this journal, to explain those laws and regulations which are advantageous to the profession and the public, but it does not follow that the persons who are capable of detecting abuses will always devote a sufficient share of attention to an important subject, to understand in what manner those evils may be removed and prevented, the existence of which they are so earnest and sincere in deploring. That a sound medical consti-

tution is easy of construction we think is undeniable. Where are the difficulties? Are they to be found in the sordid prejudices of the ignorant, hard-hearted monopolists? Why, if the obstacles could only be found in such quarters as these, there would be no sin in passing an Act of Parliament for levelling the temples of those cormorant corruptionists with the dust. Where, then, we ask, are the difficulties? The Government is with us; the intelligent portion of the legislature is on our side; the community demand protection from quacks and charlatans; and the profession, with the exception of "the few" who profit by dishonestly dealing in medical honours, petition, in terms denoting anxious solicitude, for the success of that great cause which will ultimately place the legal rights and professional privileges of English practitioners in medicine upon a secure, honourable, and scientific basis. Let us, however, in pursuing our inquiry to its final triumph, take especial care not to exclude any portion of that evidence with which experience has furnished us, either for our guidance or our avoidance. It is our duty to extend our view beyond the shores of England, Ireland, and Scotland, to observe what has been done, and what is now doing, in Europe, in relation to medical science and the government of medical practitioners. Accordingly we seize the present opportunity of presenting British practitioners in medicine with a summary of the national system of medical government and education at present sanctioned in France, and also of the improvements which have been suggested in the report of the Commissioners who were appointed by the French Ministry to investigate the state of the medical profession in that country.

There are three principal schools in France on which the privilege of granting degrees in medicine is conferred by law, viz. one in Paris, another in Marseilles, and a third in Strasbourg. The other schools,—those of Lyons, Bordeaux, Toulon, &c., are called "secondary" schools; and do not enjoy this prerogative.

The School of Paris, or, as it is termed, "The Faculty of Medicine," is composed of twenty-four professors, including a "dean" or president. A majority of these individuals constitute a council, with powers similar to, but much more limited than those of the College of Surgeons in London. This Council decides on all measures relating to the instruction of the pupils, the discipline of the school, the expenses, &c. But the rules so ordained are not binding until they have received the sanction of the Rector, or Royal Council,—in other words, of the government.

The degrees conferred by the Faculty are those of "Doctor in Medicine" and "Doctor in Surgery." Besides these there is an inferior order of practitioners, called "Officers of Health," to whom we shall presently more particularly refer.

The student who proposes to obtain the degree of Doctor in Medicine or Surgery, must study for four years, during which time he must "take out," as it is said, sixteen "inscriptions," one every three months; that is, he writes his name, address, &c., in a register, and pays each time a moderate sum, the total of which may amount to 750 francs, making, with the examination, thesis, &c., the whole expense of his medical fees amount to 1100 francs, or 43*l.* sterling. It should be remarked that entrance to all the hospitals, and to lectures delivered by the Professors of the Faculty are gratuitous, and that no certificates of any kind are required from the candidate for a degree.

During his four years of study the candidate has to undergo the following examinations, five in number. The first comprehends *Natural History*, *Pharmacy*, *Physics*, and *Medical Chemistry*. This

examination must be passed after the fourth "inscription," or first year's study, and before the fifth, or second year. The second examination embraces *Anatomy* and *Physiology*, to be passed at the end of the second year. The third examination is on *Medical and Surgical Pathology*. The fourth on *Hygiene, Medical Jurisprudence, Materia Medica*, and *Practice of Physic*. The fifth is on *Internal Clinique* and *Midwifery*. The three latter examinations cannot be passed before the completion of four years. Finally, having answered on these several subjects, the candidate sustains a thesis of his own choice, and is admitted to the degree. Formerly there was some slight difference between the examination for the degree in medicine and that in surgery; but since the 11th of October, 1831, they have been precisely the same.

The inferior class of practitioners, or *Officiers de Santé*, has for a long time been considered as a blot upon medical organization in France, and the labours of the medical commission have been chiefly directed to the placing of all practitioners, whether in medicine or surgery, upon the same level as to education, rank, &c. The student who proposes to become "an officer of health" is not compelled to study in the schools of medicine. If he have been the pupil of a Doctor in Medicine for six years,—if he have attended a military or civil hospital five years consecutively, or have studied during three years in a school of medicine, he may present himself for examination before a medical jury, which sits for this purpose in the chief town of each department, and is composed of two doctors in medicine, joined to some one professor from a chief school. The candidate is examined in *Anatomy*, the *Elements of Medicine*, in *Surgery*, and the most useful portions of pharmacy. The expense of this degree is not more than 200 francs or 8*l*. sterling. But the officer of health can only establish himself in the department where he has been examined, and cannot practise any of the great operations in surgery without the superintendence of a Doctor.

Such is a very brief view of the requisites for obtaining a medical degree in France. But the want of a new medical organization has been for some time felt in that country. Accordingly a commission was appointed at the end of the year 1829 to inquire into the subject. The revolution of 1830, however, and the cholera disturbed the progress of this, as well as of many other fair projects. It has very recently been renewed, and the commissioners have now examined more particularly into the following questions:—1st, the inexpediency of having different orders of practitioners. 2ndly. The propriety of appointing medical councils in each department of the country. 3rdly. The propriety of wholly suppressing and abolishing secret remedies. 4thly. The creation of three new schools of medicine; and, 5thly, the appointment of physicians, somewhat similar to our parochial surgeons under the poor-laws.

This is not the hour to descant upon the inexpediency, the impolicy, the gross absurdity, of permitting various grades of practitioners in medicine. This injurious institution exists in almost every country in Europe, but it cannot last much longer. In our own country it has received a succession of blows from which it never can recover. In Germany, Prussia, and Italy, it is true that there are but two classes—surgeons and physicians,—but the former hold a secondary rank, and very few of them, even after long labour, and by the exercise of high talent, reach the upper ranks, and there, too, must the division end in amalgamation. In France the commissioners propose, as a preliminary measure, the abolition of the rank of "officers of health."

The second proposition relates to the appointment of three additional Faculties. We have remarked already that Paris, Marseilles, and Strasbourg, are the only places in France which enjoy at present the right of conferring medical degrees. It is now proposed to extend the privilege to three other chief cities, as Nantes, Toulon, Bordeaux or Lyons, and to grant them all the powers possessed by the Faculty of Paris. By this means it is assumed that instruction will be more extended, and certainly be attained at a cheaper rate; while, as the commissioners observe, the pupils being more disseminated, *will be removed from the tumults and passions of the capital.* The latter reason is perhaps more closely connected with politics than with medicine.

In this country the appointment of medical attendants under the poor-laws, though subject to much abuse, is in principle an excellent institution. In France no provision of this kind has hitherto been made. Hence the commissioners propose the creation of district physicians ("médecins cantonnaux") in certain portions of the kingdom where the poverty of the inhabitants is so great that medical men are debarred from settling amongst them, or where the actual number of physicians or surgeons is not considered sufficient to preserve the health of the people. These gentlemen are to be chosen by the medical committee of the department, on the recommendation of the local authorities, after having exhibited satisfactory proofs of capability and character. Their emoluments (?) are to vary between 600 francs (24*l.*) and 1500 francs (60*l.*) according to the extent and resources of the district.

The mode of organising medical councils or committees for each department has occupied, at great length, the attention of the commission. The subjects were difficult, and required great delicacy in the management. There are certain rules of conduct to which every medical man, especially in private practice, should conform himself, which are well understood by all, though they cannot be embraced within the limits of a state law. The neglect or breach of these rules does not, therefore, constitute a legal crime, but injures severely the dignity and best interests of the profession, while the offender is only subject to such punishment as his conscience or the opinion of his compeers may inflict. Hence arises, in the view of the Commissioners, the necessity of appointing some body of men, with authority, to watch over the interests of the profession, and to see that the laws, at present in force, are executed with impartiality and strictness. Another duty, not less important, of the medical councils, will be the exclusion from medicine of every person who practises that art without possessing a legal qualification in the form of a medical degree. The council are also to have the power to hinder the distribution of secret remedies, which are at once a disgrace to the age and a cause of destruction to innumerable dupes. The institution of such a body as this, though it may be met by many objections, and will require much care to prevent its abuse, will, it is expected, be in the main highly useful. The Commissioners, indeed, seem to consider its value to be so great, and so universally acknowledged, that we shall detail, at some length, the manner in which they propose that the medical councils should be organised, and what are the powers with which they are to be intrusted.

Organization of the Council.

1. A medical council shall be organised in the chief town of each department.

2. It shall be composed of nine members, viz:—six doctors in medicine or surgery, and three apothecaries of the highest class. Each member must be at least thirty years of age, and have exercised

his profession for five years in the department.

3. The members shall be chosen by ballot, by the physicians, apothecaries, and officers of health of the department, assembled in the chief town.

4. A third of the council shall go out every three years by lot, and new members be chosen.

Duties of the Medical Council.

1. The medical councils shall make it their business to examine the diplomas of all persons who propose to exercise the art of medicine in the department, and shall verify their authenticity; they shall draw up exact lists of those who are legally qualified to practise, and publish them from time to time.

2. They shall prosecute those who continue to practise medicine without a diploma; and shall also take cognizance of any breach of the existing laws, as respects the sale of medicines, their preparation, &c.

3. They shall elect the county physicians, according to the form prescribed.

4. They shall visit, from time to time, as the law now directs, the shops and establishments where medicines are prepared or sold.

5. They shall take cognizance of, and endeavour to reconcile, all disputes, &c. between the members of the profession, whether national or foreign.

6. Every three years they shall embody all the suggestions and facts collected by them during that period, and which relate to the medical topography or statistics of their department, the nature of epidemics, the history of the prevailing medical constitutions, &c.

7. They shall not, under any pretext, interfere with questions of doctrine, medical opinions, or instruction.

8. Their duty of superintendence is limited to the moral conduct of those who practise in the department. The private conduct of the members, unless of such a nature as to produce public scandal, and thus tend to dishonor the profession, is not to be interfered with.

9. The functions of the medical councils are to be exercised gratuitously.

Penalties.

1. The penalties which the medical councils are empowered to inflict, are, 1, admonition; 2, reprimand; 3, private censure; 4, a public censure.

2. Admonition consists in simple advice, privately addressed to the offender.

3. Reprimand must be given *viva voce*.

4. The private censure shall be administered by the president of the council before the members only.

5. Public censure, before the public;—each individual so punished shall have the right of appeal to a higher council in Paris, or to the royal courts of justice.

There are several circumstances connected with the foregoing regulations worthy of attention. In the first place, there is no secrecy in the election of the members; every physician and apothecary in the department has a voice in the decision. There is no exclusion or aristocratic distinction of grades, but the just principle of an universal suffrage is here applied. The power confided to the councils is, as may be seen, chiefly of a moral kind: although they are enjoined to execute the laws already existing, and applicable to each individual case, yet the main agent is the public stigma which the censure of a respectable body of men, representing the profession of the department, must inflict on the offender against public morals or private duty. Finally, the services of the councils are to be gratuitous. The only recompense which the members can expect for the exercise of duties at once arduous, embarrassing, and of a highly delicate nature, is the respect and esteem which will naturally attach to the character of a man who devotes his time and labour to the benefit of his fellows.

Such is a brief sketch of the modifications proposed to be introduced in the medical policy of France.

We are sorry to announce that Baron Dupuytren is very seriously indisposed. He has been seized, it is said, with an attack of apoplexy, and it is not probable that he will be able for a long period (if ever) to resume his clinical instruction at the *Hôtel Dieu*. The duty of lecturing has been intrusted to M. Breschet, who will continue to lecture until the Baron's recovery, or until further arrangements are made. Should this chief of French surgeons unfortunately not again be restored to the profession, which he has contributed

so much to advance and adorn, his admirable lectures will be read with the increased interest which usually attaches to the "last productions" of a great man,—one, indeed, who is inferior to no surgeon of the present age.

THE annual distribution of medical prizes took place at the *Academy of Medicine*, Paris, on Monday the 18th of November. Amongst various others, medals of 300 francs value were decreed to MM. VELPEAU and BRESCHET, for their recent works on embryology. Several prizes were distributed from the MONTHYON fund, viz., to M. BAUDELOQUE 2000 francs, for the invention of an obstetrical instrument, applicable to those rare cases in which the birth of the child is rendered impossible by deformity of the pelvis, and only to be used after the death of the child has been ascertained. 1500 francs to M. SCIPION PINEL, for his anatomical and pathological researches on the brain. 6000 francs to Baron HEURTELOUP for the invention and successful application of percussion as a means of destroying calculi in the bladder. 4000 francs to Professor JACOBSON of Copenhagen, for the successful application of pressure with the same object. The academy has, with great liberality, given medals of 1000 francs value to several foreign writers on the cholera, viz., to Mr. ANNESLEY for his labours in India; to MARCUS and JACHNICHEN of Russia; to DIEFFENBACH and SCOTTOUTEN of Prussia; and to BOUILLAUD, GENDRIN, FOY, and many other natives of France. The three latter were not disgraced by presents of the cholera medals lately given by the Government.

INTERCEPTED LETTER.

"MY DEAR DR. MACMICHAEL,—How deeply I regret that I was not at home when you favoured me by calling yesterday, as I desired to see you very particularly! You have, of course, seen the shocking false report in the newspapers, scandalously hinting at an expected matrimonial alliance between the amiable and unoffending Princess and myself. Nothing for some years past has caused me so much pain. Although their M———s have most kindly and affectionately made every allowance for my feelings on the occasion, still, I do not sit quite at ease in the p———. It is a subject, respecting which, of course, I can myself offer no explanation. It is altogether a most delicate and perplexing affair. Next to the pain caused by the first announcement of the disagreeable paragraph, is the contemptuous manner in which the report, silly enough in itself, has been treated by some of the high and noble families, and here it is that I want your assistance. Should the subject be mentioned to you now that you are attending the Duke of ——, in —— Square, and Lord ——, in —— St. you will, dear Dr., render me an inestimable favour, by not regarding the subject as one of sport or jest, or by treating such an occurrence as an *impossibility*. You will greatly serve me, rather, by assuming that the report in the newspapers was not altogether unnatural, when the rank is considered which my further elevation offered, and a partiality which the Princess is known to entertain for me, in consequence of my unlimited professional and friendly attentions. By exercising, therefore, a little tact and address, you may materially contribute towards extricating me from a disagreeable dilemma. Nothing would annoy me so much as the simple supposition that my alliance with the P—— would be degrading to the R—— F——.

"I have not discontinued my morning attendance at Kensington, and it is providentially fortunate that I am thus enabled to sustain my ground, and show the *haut ton* that I am, as ever, a welcome visitor in that delightful quarter. Serve me, then, my dear Macmichael, by speaking on the subject as one of serious and natural import, and do not let it on any account be made an affair of sport or jest.

"Let me see you on your return from —— Square on Monday, but should you before that time have any conversation with the Duke on the delicate affair already mentioned, fly to me instantly, as nothing can exceed my anxiety to know the feelings of that nobleman concerning it. Your attendance at the College must be frequent in the course of the next fortnight, and I do hope that the labours of the committee which we have just appointed, will prove satisfactory to the very troublesome licentiates. We must soften down some of the severity of our laws, but as to admitting those foreigners to a full participation in the privileges of our legitimate collegians; why, it is quite impossible. I am still striving

for the Royal Commission. Without it we shall be lost. With it we should have a shield. How truly deplorable was this accession to office of the GREY ministry! Under those excellent noblemen, LIVERPOOL and ELDON, our college maintained an unsullied reputation,—its influence high, its celebrity great. How different is our situation now! I scarcely dare speak of the college before the K—— in the palace, and if I press the ministry not to sanction the appointment of a Committee of Inquiry in the House of Commons, but to approve a Royal Commission, I receive nothing but evasive answers; and to *you* I dare not hesitate to confess that I doubt the advantage of the civilities and marked attentions which I have shown to Lord BROUGHAM. I now believe that the Chancellor visited the college last winter more out of curiosity than from any desire to show his respect to me, or to affix an additional seal to the charter of our royal institution. Pray my dear Dr. M. excuse me for troubling you at this length, but do attend to my trifling suggestions, and let me see you on Monday, or before, should the Duke say one word to you concerning the newspaper paragraphs.

"Most truly, yours,

"***** *******.

"—— Nov. 1833."

ST. GEORGE'S HOSPITAL.

COMPOUND FRACTURE OF SKULL.—COMPRESSION.—TRIAL OF NATURE.—TREPHINING.

JULY 21. W. Bowker, ætat. four years, was brought to the hospital at eight p.m. this day, with compound fracture of the upper portion of the left parietal bone. The accident was caused by his falling from a loft fourteen feet high, on the stone pavement of a stable. He was brought in immediately after the accident, when a jagged wound of the scalp was found over the parietal bone, sufficiently large to admit the finger beneath, to examine the depressed portion of bone. The house-surgeon easily passed his probe between the fractured edges of the bone down to the dura mater. On admission he was comatose and insensible, and the pupils were fixed. Soon afterwards violent convulsive twitchings of the facial muscles came on, with paralysis of the right side of the body, and vomiting; breathing very much oppressed; pulse weak and fluttering. At half-past nine he had somewhat rallied; the partial paralysis left him; he moaned, cried, and turned in bed, and the pupils acted more freely; pulse stronger, and 120. Mr. WALKER and Mr. HAWKINS saw him at half-past ten, when he had considerably rallied. Much blood was suffused under the scalp, and prevented a very accurate examination of the fracture. The bone had risen, and the ridge of the fracture could be felt, but no actual depression could be ascertained. Mr. WALKER's opinion was, that the child had better be left until the morning, it having evidently, by the powers of nature, rallied much since it had been in the hospital. Mr. HAWKINS thought that the only necessity for trephining arose, not from the depression, but from there being a compound fracture. The opening made by the trephine, he added, would allow of the free discharge of matter, should suppuration ensue. The operation might be deferred with safety until the following morning, which would allow further time for the system to recover itself, and the inflammation would be but slight. This was agreed to, and the wound was ordered to be covered with simple dressing, and the child left to rest until the morning.

22. Nine a.m. Better. Was bled last night to four ounces, after which he became more conscious of surrounding objects and persons, and spoke to his father; was sick twice during the night; has had no convulsions, and slept well; pulse 112, and weak. On the surgeon's visiting him this morning, the fractured portion of bone was examined. Mr. WALKER said he could feel the one portion of bone depressed below the other. Mr. HAWKINS said that the depressed portion was raised, and only the fissure between could be felt. The child was ordered to be kept quiet; the bowels had been twice opened during the night; the right pupil was widely dilated; the left eyelid was much bruised by the fall, and could not be lifted. Mr. BRODIE arrived at one p.m.; the child was then dozing; easily awoke; pupils fixed. To be *bled* to three ounces, and the scalp wound covered with a poultice.

23. Better. Was very faint after the bleeding; slept well, face flushed; pulse weak and rapid, 120; bowels not been opened since the night of his admission.

℞ *Submur. of Mercury* grs. ij;
Rhubarb Powder grs. x. To be taken immediately.

24. Powder operated freely; tongue slightly furred; has been sick once; pulse sharp. Mr. BRODIE ordered him to be *bled* to four ounces, as in these cases he was always suspicious of mischief going on whilst the pulse remained up.

25. Better since the bleeding yesterday; tongue clean; pulse soft and quick. Ordered to take *senna draught*, 4 drachms.

26. Not so well to-day; feverish and flushed in the face; bowels have been opened by the medicine; pulse irritable, 130. Mr. BRODIE saw him, and ordered him to be *bled* again, and remarked that if he was not better to-morrow, he would cut down on the fracture, and trephine the bone, as he feared, from the child's symptoms, that some serious mischief was going on beneath the bone.

27. Child decidedly worse; pupils dilated; pulse as yesterday, quick, and irritable; bowels have not been opened since yesterday. When Mr. BRODIE saw him, he decided immediately upon applying the *trephine*. A large crucial incision was made over the seat of fracture, and four pieces of bone were removed, three by the trephine, and one by Hey's saw, the fracture, on cutting down upon it, being found much more extensive than it was originally supposed to be. On elevating the portions of bone, lymph was found upon the dura mater beneath. After the operation, the edges of the wound were brought together by sutures, for the purpose, as Mr. BRODIE said, of defending the exposed dura mater, and the child was ordered to be kept perfectly quiet.

Aug. 1. Does not appear much benefited by the operation; skin hot and feverish; countenance anxious; tongue clean; pulse quick and irritable, 125.

(*To be concluded.*)

MIDDLESEX HOSPITAL.

PARALYSIS OF THE LOWER EXTREMITIES, WITH AFFECTION OF THE RIGHT SHOULDER, AND OCCASIONAL CONSTRICTION OF THE ŒSOPHAGUS.—MERCURY KILLS AND MERCURY CURES.

FRANCES HERBERT, ætat. 27, was admitted into Seymour's Ward on the evening of the 15th of August. She stated that about two years ago she was an inmate of the *Ophthalmic Hospital* for an inflammatory attack of the right eye, the sight of which had temporarily departed, but which was partially restored before she left the house. The eye still continues weak, and the sight imperfect, and when affected even by a slight cold, the organ becomes inflamed and sore. She says, that while in the ophthalmic establishment she took a large quantity of mercury, which had a great effect on her system. Headach and severe diarrhœa also set in, and being apprehensive of a fatal termination, and wishing to terminate her days with her family, she mentioned her desire of going home. This was opposed by the medical attendant in consequence of her state of health, but in vain, for she sallied forth in full ptyalism, walked to her father's house, and immediately imagined she felt better. In five hours, however, she felt the results of her exposure to cold. A foot-bath and warm bed produced momentary relief; but in an hour came violent diarrhœa and vomiting, and the shadows of death encompassed her. For three weeks she suffered greatly, the eye especially troubling her. Intervals of mitigation occurred, but severe twitches of pain came on at the slightest atmospheric change. She continued for two months in a most debilitated state, when one morning while dressing she felt a numbness in her legs and thighs, which soon confined her to her room. She could not step, but moved by dragging her limbs. In six weeks all power over them as a means of progression departed. She swallowed, mean time, a good portion of dispensary medicine, which to the dogs, however, might as well have gone. Then she came to the hospital; and now tell we what happened there. On examination it was found, that the muscles of the affected part were wasted and flaccid, cold and insensible to pain, and unable to be voluntarily raised. She complained of occasional pain in the right shoulder, which darted across the chest and impeded her breathing, sometimes for twenty minutes. The fingers of the right-hand also seemed less flexible than those of the left. The pain was very great, and simulated excessive stinging with nettles.

℞ *Acetate of Morphine* half a grain, three times a day, in the form of a pill. A warm-bath in the evening.

August 17. No alleviation of the pain; very bad night; cold shivering; begs for great external heat.—*Acetate of Morphine*, one grain and a half every night. An ounce of *Wine* twice a day; and *Camphor Mixture* one ounce and a half daily. A warm-bath at night.

19. Warmer, otherwise much the same, with a little increase of debility, in consequence of a severe hysterical fit yesterday evening.—Pill of *Aloes* and *Myrrh*, and at night a pill of *Compound Galbanum* 5 grs. Continue the bath.

21. A slight hysterical attack this morning; otherwise better; no sensation yet in the lower extremities.—*Decoct. Guaiacum* one dram three times a day. Hot-bath every second day.

23. The painful affection of her arms,

which existed when she came in, soon after left, and has not returned; but although her general health appears much improved, she feels no mitigation of her pains, nor is there any amendment yet in the affection of the lower extremities. The fingers of the right-hand still continue contracted.

℞ *Muriate of Morphine*, ¼ gr., three times a day.

27. Slept ill last night, from a sense of suffocation. "Not room enough to breathe in the lungs," she says. Her stomach rejects food to-day. Pulse 56; general coldness over the body. Often shivers. Legs *ut ante*.

℞ *Muriate Morphine* 1¼ gr.;
Strychnine ½ gr., made into a pill, to be taken at bed-time. Continue the bath, and rub the following liniment into the affected parts.

℞ *Camphorated Oil* 1 ounce;
Tinc. Cantharides 2 drams;
Purified Water of Ammonia half an ounce. Mix.

29. Still restless at night. Now also a cough. A slight hysterical attack this morning. Very languid; no appetite: pulse 52. Continue the pill at night, the bath, &c. Give *Carbonate of Iron* half a dram twice a day.

Sept. 2. The old pain in her arm returned last night. Not the slightest indication of returning sensibility in the lower extremities, which are cold as marble. Thinks, however, the pain is less towards her hip, and she can raise the foot a little from the bed. Continue the medicines, and let the soap-and-opium liniment be rubbed on the shoulder.

4. Yesterday, and this morning, nausea, vertigo, &c. Says it is the pill, and wishes it discontinued. Simply make the following change:—*Strychnine* gr. ½; *Mur. Morphine* gr. ½. For a pill at night, and increase the *Carbonate of Iron* to forty grains.

14. The last medicines were persevered in till now, when no perceptible relief having been obtained, the medical officers held a consultation on her case, and it was unanimously resolved that mercurial treatment should be tried. All the other medicines were therefore stopped, and she was ordered *Pil. Hydrarg.*, 2 grains, twice a day. The warm-bath to be continued.

20. Much better, both as regards her general health, and the affection of the lower extremities. Within the last four days, she has been able to raise her leg nearly a foot from the bed. She can feel a pinch, and has a sensation like the stinging of nettles in the soles of her feet. Appetite much improved. Let her have three grains of the *Pil. Hydrarg.* twice a day.

29. So much better that she can sit up in bed. Each day witnesses a greater degree of sensibility in the legs, though, yesterday, in trying to walk, she failed, until assistance was given her. The medicine is now increased to five grains three times a day.

Oct. 10. The above course has been persevered in with the most marked success. The patient can now walk about the ward with a little support from surrounding tables and bed-posts. Her appetite has returned, she sleeps well, and there is no doubt of her ultimate recovery.

November. The object of the remedial agents has been consummated.

LONDON HOSPITAL.

FRACTURE OF THE CRANIUM, WITH COMPRESSION.—OPERATION.—DEATH.

Nov. 11. Joseph Bryant, aged 35, a stout, muscular man, was admitted into Gloucester's Ward, at one o'clock in the afternoon, under the care of Sir Wm. Blizard. The persons who brought him state, that a tackle block of 60lb. weight fell from a ship's mast at the height of 35 feet, and as it descended, struck him on the head. After the accident, the man walked to the shop of a medical practitioner in the neighbourhood (Shadwell) to have his head dressed. The surgeon seeing the nature of the accident, advised him to repair immediately to the Hospital, but the man refused, saying, that he felt not the least pain or inconvenience from the injury, and that if the surgeon would dress his head he would return to his work. After considerable difficulty, however, he was prevailed on to visit the hospital. With assistance he reached to within a short distance of the doors, when he fell down, had a fit, and from that time never recovered his reason.

In the ward the following symptoms presented themselves:—There was a lacerated wound of the scalp about three inches in length, over the anterior and superior portion of the frontal bone, running in a direction from the left parietal protuberance to the right eyebrow. On separating the lips of the wound, it then proved to be a fracture of the skull extending in the same direction, and about two inches in length. Numerous small portions of bone pressed upon the brain. The patient was insensible, had stertorous breathing, and foamed at the mouth; pulse 100, full;

pupils rather dilated, and in some degree influenced by the action of light. Mr. Luke endeavoured in vain to elevate the depressed portions of bone; the wound was, therefore, enlarged with a scalpel, and a piece of bone a quarter of an inch in width and two inches in length was removed by Hey's saw, in a line parallel with the fracture and from the upper side thereof. The surgeon then, with the elevator, detached this portion, and with the forceps removed the numerous small spiculæ which had been forced on the brain, one of them having wounded the outer layer of the dura mater. From the thickness of the skull, and from the patient having had three convulsive (epileptic) attacks, this operation occupied a long time. The superior longitudinal sinus was seen running across the lower part of the opening uninjured. Upon placing the finger on the dura mater, fluctuation could be distinctly felt, and on making pressure, the brain offered a firm resistance. Mr. Luke was at first doubtful of the propriety of evacuating the fluid, but at length determined on making a free opening with a lancet. About an ounce of serum escaped. A vein of the membrane leading into the sinus having been divided, a profuse hemorrhage followed; but was arrested by ligature on each divided extremity. The pulsation of the brain could be distinctly seen. Mr. Luke supposed that the serum was thrown out beneath the dura mater over the whole surface of the brain, and that it was principally to this circumstance that the symptoms were owing. He was led to believe so from the quantity released by the incision, by the relief immediately afforded, and by the symptoms coming on so long after the accident.

The compression being removed, improvement was manifest. The pulse, thenceforth (2 o'clock), became more full, free, and quick, 120; pupils more mobile, breathing less laboured. Lips of the wound brought together with lint and adhesive plaster.

Half past 2. Pulse very full; not increased in frequency. Other symptoms the same. Epileptic attacks every fifteen minutes. Bled from a large orifice to ℥xxiv, upon which the pulse became softer and quicker, 130 in a minute; the iris more readily affected by light; he appeared sensible to pain.

Half past 3. Pulse rose; again bled to ℥xxx, which produced a good effect.

Five o'clock. Much worse, the stertorous character of the breathing increased; pulse 135, full and irregular; pupils less easily excited to contract.

Nine in the evening. Still worse; pulse 140, but not so full. Every expiration of air accompanied by a moan. Has had fits since his admission at intervals of about half an hour. 'Tis thought he will not live till morning.

12th. Opinion not verified. Seems much better. Very restless during the night, but no fits since 2 a. m. Slight recollection now, speaks occasionally, and recognises his friends. Pulse 104 soft, skin moist, tongue brown and furred, respiration without stertor. At noon his pulse became fuller, wound dressed and looks well, bowels not open since the accident. *Calomel* with *Jalap* a scruple directly, and repeat it if the bowels are not relieved. *Calomel* 2 grains every 3 hours. In the evening he complained of pain in the head. Powders have not yet operated. Bled to ℥xvi. Give house medicine every 3 hours till the bowels are freely opened.

13th. Four doses of the mixture were given in vain, but this morning an enema has twice freely evacuated the bowels. A bad night, and would try to get out of bed. Says he has no pain in the head, or inconvenience from light shining in his eyes. Pulse 116, rather full; tongue moist and brown; skin comfortable; no inflammation around the wound. The head to be kept constantly wet with spirit lotion. Is quite sensible. On coughing, a peculiar whizzing sound is produced by the air escaping from the frontal sinuses, through the fracture. Mr. Luke remarked that although he now appeared to be going on so well, there were three fatal circumstances which might yet occur,—effusion of serum, producing compression, abscess in the brain, and fungus. The latter he did not much fear, as it could, in all probability, be removed by pressure and caustic. Bled to ℥xvi. Continue the Calomel.

Evening. At 7 o'clock he became much worse; pulse 104, small and weak; skin hot; tongue dry and parched, teeth covered with sordes; countenance anxious; respirations 45 in the minute, laboured, but not stertorous. Bowels not open since the morning. A dose of house medicine was given him, and the dresser ordered 16 leeches to be applied to the temple. Mr. Luke saw him soon after. The evil symptoms had increased. Fifteen more leeches were ordered to the head, and a cathartic draught directly.

14. Bowels have been freely opened, but he is evidently sinking. He cannot be roused. He is continually endeavouring to raise his hands to his head. The surface of the wound is covered with a slough. Continue the calomel.

At 3 o'clock p. m. he was a corpse.

Post-mortem Examination of the Head forty-eight hours after Death.—The fracture had not extended beyond what was apparent before opening the skull. Between the dura mater and the arachnoid was a small quantity of blood and serum, and attached to the cerebral surface of the dura mater was a thin and delicate layer of lymph forming a soft false membrane. There was also, at the upper and fore part of the brain, a thin layer of coagulated lymph, attached to the arachnoid membrane, and at the upper and back part was a similar secretion, but not so much coagulated. The greatest quantity was on each side of the longitudinal sinus. No blood was found on the superior surface of the cerebrum. The brain at the seat of fracture had a bruised appearance, not lacerated. Between the convolutions of the brain there was extravasated blood, which penetrated about an inch into its substance, and assumed a dotted appearance. The substance of the brain was vascular, and the left side more so than the right; there was a larger quantity of fluid in the ventricles than natural, and the plexus choroides was somewhat enlarged. On examining the base, there were found unnatural adhesions between the outer and lower parts of the middle lobe, and the membranes on the right side. The brain was also softened at that part. The under part of the posterior lobes was covered with blood. There was slight extravasation between the membranes, and the dura mater in parts was preternaturally vascular. There was a quantity of extravasated blood in the lateral and inferior petrosal sinuses probably from the position of the head.

WESTMINSTER HOSPITAL.

ULCER OF CORNEA—MR. GUTHRIE'S BLACK OINTMENT—MR. FOOTE'S ESSENCE OF LEMONS IN OPHTHALMIA—TABES SYPHILITICA.

MARY CUTLER, aged 23, a young widow, who never had any children, was admitted, 7th May ult., with an ulcer on the cornea of right eye. She had intolerance of light and lachrymation in both visual organs. The right eye had been affected more or less severely for two years, and the vessels as well of the sclerotica as of the conjunctiva were prematurely distended. Mr. JOHN FOOTE, one of the dressers, was intrusted by Mr. WHITE with the treatment of the ophthalmic disorder. He introduced,* occasionally, that is about twice a week, between the lids, a small portion of the following ointment:—Take of

Nitrate of Silver ten grains;
Fresh Axunge a dram;
Liquor of the Acetate of Lead fifteen minims.

Triturate in a glass mortar until the constituents are incorporated. The nitrate of silver is first to be levigated with the utmost care and nicety, the lard is then to be added, and, finally, the six drops of Goulard. If the caustic be not reduced into a very fine and impalpable powder, the ointment will produce a sloughing of the mucous membrane of the eye. A portion of this ointment, about the size of a grain of wheat, is to be introduced by means of a tiny wooden spatula beneath the upper palpebra, which is to be gently rubbed over by the index of the operator, until the ointment be spread sufficiently between the eyeball and eyelid. The stimulation of this applicand is very intense, and produces acute pain for an hour. Its good effects in chronic cases are unequivocal, and Mr. GUTHRIE has been in the habit of employing it, very successfully it is said, in acute cases of conjunctival catarrh, purulent ophthalmia, corneitis, &c. In this particular case its effectiveness was signally evinced, *when combined with active purging*. In about three weeks the ulcer disappeared from the cornea, the turgid vessels contracted in their diameter, and became nearly invisible, and the conjunctiva of either eye was restored to its transparency. The said Mr. JOHN FOOTE, an ingenious and industrious student of this hospital, has lately been making a series of experiments on the use of the essence of lemons as a remedy in ophthalmic diseases. This stimulant was originally employed by Dr. VERLITZ of Berlin, 1st. In incipient chronic inflammation of the eye; 2nd. In pannus and pterygium; 3rd. In albugo and opacity of the cornea; 4th. In mollities of the cornea. Dr. VERLITZ applies the remedy in the following rude manner:—He cuts a slice of lemon-peel about an inch long and half an inch broad, places the outer part opposite the affected eye, the eyelids being opened, and by slight pressure squeezes out the little drops of volatile oil contained in the tissue of the rind. Mr. FOOTE has improved upon this plan, and applies the distilled essence of lemons by means of a quill cut in the usual form. In a paper recently read before the *Medico-Botanical Society*, Mr. FOOTE relates several cases which he successfully treated with this remedy, and concludes with the following remarks:—

"I have invariably used the essential oil of lemon of the shops, and have dropped

* Mr. Guthrie's celebrated "black ointment."

it on the eye in the same manner as the vinum opii is applied, namely, with a quill cut in the shape of a pen, but rounded off instead of having a point. It requires to be dropped in very speedily, as it rapidly volatilizes. I have always, when it has been in my power, applied the essence once a day, but it has occasionally happened that the patients have neglected attendance for two, three, or more days, and have then returned much worse than they were previously. I may also add, that occasionally, even when they were regular in their attendance, a relapse would take place; and this occurred in a remarkable manner on Saturday the 1st of June. On the preceding day, several cases were reported, as rapidly improving, or nearly convalescent, and yet on the 1st, with perhaps one exception, they returned with a fresh attack. Had only one or two cases relapsed, I might have attributed it to negligence and inattention to my directions on the part of the patient, or to exposure to cold; but as by far the majority of the cases were similarly affected, I could not avoid considering it as something remarkable, and dependent upon some change in the atmosphere.

"In summing up, I may say, I have employed the essence of lemon in various acute and chronic inflammations, in opacity of the cornea, and the purulent and muco-purulent ophthalmia, but not in pannus, pterygium, or albugo; cases of the latter description not having of late come under my care. I should consider, from the nature of the complaints, that it may prove advantageous in albugo, but in regard to the other two diseases, I should be very dubious of its powers. On the whole, I believe it to be preferable to the vinum opii in all cases where a stimulant is indicated, and equal in many to the unguentum argenti nitratis, but falling short of it in others, while the great facility with which it may be obtained and applied, renders it a great acquisition to the country surgeon, who would find it inconvenient to spend a couple of hours over the mortar in pulverizing the nitrate of silver, with the prospect that, when he has made his ointment, he may be unable to use it from the circumstance that he has left a few granules of the nitrate not sufficiently fine, and which no after treatment will be able properly to reduce. I have tried it (the essence of lemon) in about five-and-twenty cases."

Other gentlemen studying at the *Westminster Ophthalmic Hospital* have not met with results so favourable as Mr. Foote, and they consider the essence of lemons generally, as unnecessarily painful, and also capricious and ineffectual.

Sept. 7, 1833. Mrs. Cutler is a native of Bristol. She was married about seven years ago, and two years afterwards was infected with the venereal disease by her husband. She has had a gonorrhœal discharge, varying in severity almost continually since that period, and it has occasionally produced scalding at each emission of the urine. She does not recollect having any swellings in the groin, nor yet sores in the vagina or vulva, but such might have occurred without her cognizance, she being then young and inexperienced. She was treated however with mercury. About a year after the first attack, she had sore-throat, which went away spontaneously. Eighteen months ago the sore-throat returned, and has continued with intermissions until now. She continued to cohabit with her husband until his death, which happened about a year past.

The following is a true portraiture of her present condition. She reclines in a listless manner on her bed, her eyes being half-closed, more from a habit induced by long-continued ophthalmia, than from the influence of any actual disease, for those organs are now apparently healthy. The skin over the superficies is pallid and opaque, and the face is sallow. There is no deficiency of adipose matter. Cicatrices of a large lichen, which formerly spread over every part, are visible. The symmetry of her person is very good. The thorax is capacious; the respiration slow, and the respiratory murmur is not distinguishable, unless she be a little excited; but when she is roused, it is perceived to be quite natural in every region of the chest. Percussion too elicits satisfactory responses. The action of the heart is laudable, as respects as well its rythm as its impulse, and the extent through which its sound penetrates. The pulse is 108, regular, small, and feeble. Her appetite is poor; her bowels not very regularly open; her voice has been hoarse these few days, as if from catarrh; she sleeps indifferently, and is free at present from night-sweats. She complains of a sense of soreness in the throat, but the colour of the mouth, fauces, and pharynx, is quite natural. The uvula is singularly small. The catamenia are irregular, and she has at this moment a thick yellow discharge from the vagina, which stains and stiffens her linen. She has pain in the compages of the thorax, most severe in the spine and in the sternum. She has almost continual aching in the limbs, and over the head, and which is now and then particularly intent in the occiput. She is on low diet, and has bread and milk as extras.

Since her admission, she has had inflammatory pains of nearly all the viscera, but these have been subdued by proper antiphlogistic measures. She was for some time troubled with nocturnal perspirations, and an obstinate diarrhœa, and an aching sensation in her gums annoyed her for a long time, even when she was not taking mercury. She has had blue pill, and oxymuriate of quicksilver with sarsaparilla, nitric acid, carbonate of iron, Griffith's myrrh mixture, and a variety of other remedies, but she still remains in a state of tabid debility, in low spirits, and with flabby muscles, and torpid emunctories. Mr. White is of opinion that there is no structural mischief, and that change of air, of scene, and of habits, is necessary to her recovery. She now takes this mixture,

Infusion of Roses 6 ounces;
Sulphate of Alumine a dram and a half;
Dilute Sulphuric Acid 6 minims;
Mixed; an ounce every six hours.

ABSCESS ROUND THE KNEE-JOINT, AND LOW NERVOUS OR HECTIC FEVER.

Susan Parsons, ætat. 22, was admitted under Mr. Guthrie, August 7, 1833, with a diseased knee. On admission, the integument, superincumbent on and surrounding the joint, was highly inflamed; five dozen leeches were applied by the house-surgeon, but without diminishing the inflammation; extensive suppuration took place under the integuments, and formed a large continuous sac, which opened spontaneously at a superior point. Openings were made into different parts of the sac, where the pus was most prominent, or the sac most pendulous. The suppuration did not extend into the knee-joint, and the ligaments are apparently uninjured. Sympathetic inflammatory fever attended the local malady, and was combated by antiphlogistic measures; such as purgatives of calomel and colocynth, and diaphoretic mixtures composed of antimonial wine, and acetate of ammonia, in various proportions.

31. The inflammatory fever before alluded to gradually degenerated into synochus. The quality of the pus secreted from the ulcerous surface was deteriorated, and no vigorous attempts at granulation were manifested. To-day the patient is considerably emaciated; the skin is sallow, hot, and dry. The eyes are sunken, the conjunctivæ yellow, and the eyeballs glistening with a morbid brightness; dark areolæ are formed round the orbits; the countenance evinces a fatuitous expression, and there is a very slight incoherence in the train of ideas; the pulse 120, tolerably full and regular, but presenting a salient character; she has no appetite, but is annoyed with almost constant nausea; she has had this fortnight a severe diarrhœa, which is nearly dormant at night and in the morning, but which assumes an aggravated form towards the evening, when she has generally seven or eight stools; the tongue is moist, and covered with a brown fur.

The sympathetic inflammatory fever continued to be treated with purgatives, such as calomel and colocynth, and senna with salts, exhibited in moderate doses, and the constant use of antimonials and other diaphoretics. As soon as the febrile action in the system was subdued, sulphate of quinine, with infusion of roses, and sulphate of potass, with infusion of roses, were successively administered. These remedies were left off in consequence of the occurrence of the diarrhœa already alluded to. This last affection has been as far as possible counteracted by the use of soda, ammonia, and opium, in various formulæ, but with only ephemeral or partial effect. She is allowed a gill of port-wine daily.

The dejections have occasionally been slimy and dark, but to-day they are improved in colour and consistence. She has had frequently severe pain of head, and for an hour or two in the evening loss of sight, attended with great nervous irritation. She suffers continual thirst; the skin is dry; the bowels open seven or eight times daily; the catamenia regular; her head has just been shaved, and the following refrigerant lotion is ordered to be constantly applied. Take of

Spirit of Wine an ounce;
Spirit of Mindererus three ounces;
Distilled Water eight ounces. Mix.

The surface of the abscess looks red and granulatory; the pus, which was beginning to assume an ichorous character, has become laudable, and the countenance a little more cheerful. In addition to her wine she is ordered to take the following mixture:—Take of

Carbonate of Ammonia a dram;
Decoction of Bark eight ounces.

Mix an ounce, to be taken every four hours. A five-grain pill of soap and opium to be taken every night.

Sept. 17th. Poultices were assiduously applied to the surface of the sore, and afterwards pledgets of simple dressing. Her countenance is cheerful, face of a good colour, conjunctivæ clear, and the expression of the eyes intelligent and brisk. Tongue clean, pulse 108 regular, bowels occasionally purged as before the last notation. This has been cor-

rected by the occasional exhibition of a mixture containing kino, opium, and aromatic confection. The skin is dry and rather above the natural temperature. The surface of the ulcer involves two-thirds of the superficies of the knee-joint, and is covered with large flabby granulations of a fungoid character, and bleeding on the slightest irritation. A laudable pus is secreted from the surface, and the margin is livid with a cicatrising border, and the area appears to be fast contracting in diameter. She takes at present the following mixture:—Take of *Carbonate of Ammonia* a dram; *Infusion of Gentian* eight ounces. Mix, and take an ounce and a half for a dose twice a-day.

TETANUS TRAUMATICA—AMPUTATION OF THE INDEX-FINGER—OPISTHOTONOS—DEATH—AND POST-MORTEM INSPECTION.

INTERLUDE,—SYPHILITIC ULCER AND FISSURE OF THE SOFT PALATE.

Sept. 7. There was a numerous assembly of pupils and visitors to-day. Mr. LYNN was the first chirurgical functionary visible on the field of duty. During his visit in the surgery, a lad named Mills was brought in with traumatic tetanus. The constitutional mischief proceeded from a contusion and laceration of the index of the left-hand. When examined by Mr. LYNN, there appeared a deep slough over the first and second phalanx of the affected finger, and a portion of lacerated tendon was hanging loose, but that gentleman, understanding that it was Mr. GUTHRIE'S week for receiving patients, merely snipped off the tendon with a pair of scissors, and ordered the part to be covered with poultice till Mr. GUTHRIE should come. It was suggested to Mr. LYNN that this was a good case for trying the German homœopathic system, and that would be put into effect by administering strychnine in considerable doses. Mr. LYNN replied that he had never, in the course of a sixty-years' practice, seen any case of tetanus, whether traumatic or idiopathic, cured by any means, and if the patient were his, he would gladly try any outlandish system, whether German, French, or Turkish, for under the English plan he must inevitably die.

Soon after Mr. LYNN'S departure Mr. GUTHRIE arrived, and having examined this patient, proceeded in his clinical walk, during which, a man of middle age, with enlarged testicle, attracted notice. This organ had been much reduced in size by counter-irritation, purgatives, and alteratives. "Now," said Mr. GUTHRIE, "this testicle, or even a more innocent one, would have been cut out thirty years ago. You have here an example of what surgical forbearance can do. Come forward, some of you 'two-year-old-men,' I have a question or two to ask you. What chain of glands would become affected if there was superficial ulcer on the scrotum?" It was answered (after one or two fruitless essays) satisfactorily. The chain of inguinal glands, passing under Poupart's ligament. "Good! What chain of glands sympathises with the lymphatics of the testicles themselves?" The chain of lumbar glands. "Good again! The superficial absorbents of the scrotum pass through the inguinal glands, whilst those of the testicles permeate the lumbar glands." The surgeon next stopped at the bed of David Symmonds, who had ulcer or rather fissure of the palate. "Now," said he, "which of the competitors has any account of this interesting case? This is an example of the good effects of mercurial fumigation." This invitation was promptly accepted by Mr. FOOTE, one of the dressers, who read to the following effect:—

"David Simmonds, 37 years of age, a labouring gardener, residing at Millbank, was admitted August 21st ultimo, by Sir ANTHONY CARLISLE, at the request of Mr. GUTHRIE, and according to the etiquette of the Hospital was placed under the care of the latter. He is of middle size, and of moderate muscular and adipose development. He has been married ten years. He had syphilis about fifteen years ago, but has not been affected with it since. The attack lasted about twelve months. He had bubo, chancre, and pains in the bones, but no sore-throat, eruption (except once he thinks about ten years past), or affection of the iris. He was not salivated for it, nor does he know that he has taken any mercury. Whenever he catches cold, he has intense and long-continued aching of the bones. He attributes the present affection to a cold, which he caught six or seven weeks ago. He had consequently inflammation of the Schneiderian membrane and sore-throat, which grew worse and worse for a fortnight. At this time, on looking into his mouth, the tonsils were found enlarged and ulcerated. An ulcer, like a cleft, existed in the mesial line of the palate, and having its long axis in the same direction, that is from before backwards. It is ascertained by the probe to have penetrated into the area of the pharynx, just at the junction of the soft and bony palate. The edges of the ulcer are sloughy. The marks of one or two ulcers may be seen on the palate in the neighbourhood of this. The swallowing is not much affected. The voice is hoarse. Mr. GUTHRIE ordered his throat to be fumi-

gated thrice a day with a dram of factitious cinnabar.

"29th. The ulcer looks healthier and smaller; the mouth is getting sore; there is a slight ptyalism, but he has no coppery taste.

"Sept. 1. The mouth sore. Character of the ulcer improving.

"7. The patient very much improved as respects the ulcer and tonsils."

The patient is but a lean subject, and presents marks of premature old age. The sides and surface of the ulcer are quite clean, and evidently throw out vigorous granulations, the foramen in the middle has much contracted, and promises to be speedily obliterated. Mr. GUTHRIE has directed the mercurial action to be kept up in a moderate degree. He is allowed good diet.

Mr. GUTHRIE having completed his rounds returned to Joseph Mills, whose case excited general interest. In reply to some questions which he answered with considerable coyness, Mr GUTHRIE said that he had cured tetanus with every remedy that had ever been used, and that he had failed with every remedy, and therefore he did not know any one that could be depended upon. He objected to the administration of strychnia, because it frequently produced, when administered in large doses, intractable ulcers in the internal fauces. He amputated the affected finger at the first joint in a very rough and off-hand style, and then consulted his favourite colleague as to the medical treatment he should adopt. Dr. ROE tendered his advice, which will appear in the sequel, with that coy and smiling sheepishness which is the generic characteristic of genius, and conciliates universal esteem. The following is the history of the case:—

Joseph Mills, 18 years of age, a sawyer, when weighing a piece of timber about a *ton* weight, had his index as already noticed crushed by its fall, and the first and second phalanx broken. He went immediately to a self-dubbed surgeon, who resides in one of the northern suburbs, and had his finger bound *excessively tight* with strapping. The surgeon gave him no physic, but desired him to call the next day. The finger became very black, and the boy called according to appointment, but Apollo merely looked at the finger, and did not attempt to loosen the bandage. On the third day, the poor lad called again, when he was informed, that the skill of Sir Oracle was exhausted, and that he must apply for admission to an hospital.

On presenting himself at the Westminster Hospital, which he did immediately on receiving the above-mentioned advice, his fore-finger was in a state of slough up to the joint between the first and second phalanges. The constricting strapping was of course immediately removed, and an emollient poultice was applied. He was ordered a calomel-and-colocynth pill, which he took before leaving the hospital. The next day, the fourth day from the receipt of the injury, he again attended as an out-patient, and the bowels had been opened freely. After this, he neglected coming till the 6th September, the ninth day from the date of the accident. On this occasion Mr. Finch was anxious to amputate the finger, but Mills declined consenting, and alleged as a reason that he had a slight pain in his shoulder. Two of the Lynn pills were given to him, and the poultice was continued.

Saturday, 7th September, 1833. The mother of Mills came to the hospital this morning, and said that he had had a violent spasm during the night resembling a fit, and that he had bitten his tongue. Leave was therefore granted for his admission as an in-patient.

12 p.m. He complains of great pain in the shoulder; he has spasmodic paroxysms every six or seven minutes; respiration quick; pulse 96. The muscles collateral to the spine are slightly stiff. Those of the jaws have been rigid, but are now relaxed; his bowels are costive, and tongue much furred.

As soon as the finger was amputated in the manner already described, three drops of croton oil were immediately given to the patient, and ordered to be repeated every half-hour until the bowels should be freely open. It was not necessary to repeat the dose, for the bowels were violently moved within the stipulated time. An evaporating poultice was applied over the ulcerated stump, and suppuration was promoted by every means. He was ordered to take the following mixture until strangury should be produced.—Take of

Spirit of Turpentine 1½ oz.;
Mucilage q. s.;
Distilled Water five fluid ounces.
Mix, and swallow an ounce for a potion every two hours. At bed-time three grains of crude opium are to be given to him.

3 p.m. The paroxysms continue, but are less severe.

5 p.m. Mr. GUTHRIE considers him to be much better, and desired nothing might be given to him while he continued in that amended state. This relief lasted about half an hour, when a paroxysm recurring, destroyed the illusive hope that any *essential* improvement had been effected.

6 p.m. Pulse small and hurried; the

bowels have been opened three times; the tongue very much furred.

8 p.m. The paroxysms continue frequent, and the disease has apparently taken on the character, though not well-defined, of the variety *opisthotonos*.

10 p.m. He has retention of urine, and this fluid is drawn off by a catheter.

Midnight. The spasms continue, and the patient remains sleepless.

Sunday, 12 a.m., 1, 2, 3, p.m. He passed a restless night, and he remains nearly in the same state as in the last notation. The features are anxious and the face flushed; the pulse small, quick, and frequent, the respiration hurried yet laborious; the surface covered with the most profuse perspiration. He continues the medicine, and the poultice is changed every four hours.

4 p.m. Mr. GUTHRIE ordered a second dose of three grains of opium to be swallowed immediately, and to be repeated if necessary every four hours, and the following lavement to be thrown up without delay. Take of *Oil of Turpentine* half an ounce, *Tincture of Asafœtida* half an ounce, *Laudanum* a dram; mix and form an injection.

5 p. m. The above written notes are taken by a constant attendant on the case. At present the condition of the patient is this:—he lies on his back in bed, and is tied down by a sheet fixed transversely over his body and fastened to the frame of the iron bed. The tetanic efforts are frequently beyond the control of the will, and are attended with acute pain. The longitudinal spinal muscles are chiefly though not exclusively affected. The face is ruddy, and the countenance evinces but a very slight degree of anxiety. The eyes are bright, and the pupils rather more than naturally contracted. His mind seems quite tranquil. He moves his eyes, opens his mouth, and thrusts out his tongue without any difficulty. There is however a general stiffness of the muscles not amounting to rigidity. He has continual pain in his back and across his shoulders, and when he moves so as to alter the centre of gravitation in the body, he suffers most acutely. He has powerful salient spasms every ten minutes, which entirely incapacitate him from rest. He has great thirst, and has consequently drunk a good deal of fluid. He vomited frequently last night. His tongue is now furred. His bowels well open and stools of laudable character. He has had pain and cramps in the bowels, for which the asafœtida glyster was a second time administered. The pulse 90. Skin moist and cool. His health was never affected previously to this accident, except that he had an abscess over the floating ribs of the left side, the consequence of a blow.

7 p. m. He has slept nearly an hour and a half without a paroxysm. Pulse quick and fluttering. Bowels open.

Twenty minutes past 8. The paroxysms have just returned, and with more severity than ever before. A three-grain opium pill is immediately given to him; and the antispasmodic injection is thrown up by a Read's patent syringe.

9 p. m. He is now sick, and has a burning sensation in the throat, attended with difficulty of deglutition. The perspiration is still very profuse. He cannot retain the terebinthine mixture in the stomach. The muscles of the jaw and limbs are becoming more and more tense; bowels tympanitic. Pulse small, hard, and rapid. The symptoms rapidly increased in severity, and the powers of life reluctantly succumbed. The patient died in the night. The case was seen by the Chevalier GRAEFE.

Autopsy of Joseph Mills.

The day after death, the body was opened in the presence of Mr. GUTHRIE and several medical men. As soon as the breath was out, the body had been placed prone, with a view of preventing the gravitation of blood or other fluids toward the spinal chord. In the brain the pia mater was found injected, and a considerable deposition of lymph was discovered between the pia mater and tunica arachnoidea. All the sinuses and veins of the brain were gorged with blood. There was no fluid in the ventricles, but the plexuses of the velum interpositum were excessively distended. In the theca vertebralis a large quantity of dark extravasated blood was found. The pia mater of the medulla oblongata and of the spinal chord was much injected, and this heightened colour of the membrane was traceable for a considerable distance in the neurilema of each spinal nerve. In the thorax the venæ cavæ at once presented themselves fully distended. This was the case of the right auricle and of the whole nervous system. The left side was empty and collapsed. The structure of the heart and lungs was perfectly healthy. There were no morbid marks in any of the abdominal viscera, whether directly chylopoietic, or aiding and abetting. The usual quantity of gall was present in the gall-bladder, and the urinary bladder was full to distention. The nerves traced from the affected hand upwards did not exhibit the faintest vestige of disease.

LACERATION OF URETHRA BY A FALL.—EXTRAVASATION OF URINE.—OPERATION IN THE PERINEUM.

Edmund Bishop, ætatis suæ 38, admitted 24th of September, 1833, with a contusion in the perineum. He resided in the lower parts of Westminster, and was a man of tolerably correct habits. Two days before admission he was amusing himself by leaping over a chair. In his attempt he fell, and struck his perineum against the projecting tenon of one of the arms which was broken. He immediately experienced very acute pain, and perceived that an instant swelling and discoloration took place. He felt a desire to make water, but he found he could not succeed. He immediately, therefore, sent for a medical man, who passed a catheter, and brought away a pint of bright-coloured blood; this had no urinous smell. He was considerably relieved, however, by this measure. Cold lotions were applied, and the hemorrhage ceased. Once during the evening of this day he made water of his own accord, but not to any great amount.

Next day (Monday, 23rd Sept). Warm poultice of turnip and carrot was applied, and brought on the bleeding as bad as ever. With this blood, a little urine flowed also.

On Tuesday, about noon, he was admitted. The scrotum was tumid and livid, and this discoloration reached the perineum, and affected a portion of each thigh. An attempt was made to pass the catheter No. 12, but without success; it could not be made to pass beyond the prostatic part of the urethra. A quantity of florid blood flowed through the tube (at least twenty ounces). It soon coagulated, and emitted no odour of urine. On this occasion the patient did not experience any relief from the flux of blood. Sir ANTHONY CARLISLE saw the patient soon after admission, and was of opinion that no attempts at catheterism should be made, and desired that the assistant-surgeon might be sent for without delay. Mr. W. LYNN very speedily arrived, and after a consultation with Sir ANTHONY, he proceeded to make an incision into the perineum. This he did a little to the left side of the raphe. A large black clot of blood was emancipated, but was not tinctured with any urinous properties. Another incision divided the artery of the bulb, which was tied. All this afforded no relief to the patient, who had a deep dull pain in the hypogastrium. This region was exceedingly painful to the touch, and exhibited a prominence corresponding to the shape of the distended bladder. An examination of the perineum showed the membranous part of the urethra to be entire, and it was inferred that the laceration was situated in the bulbous portion; no infiltration of urine could be detected. Mr. Lynn, after a little manœuvring, succeeded in getting a large round-pointed catheter into the bladder, and in producing a tolerably copious flow of urine; this was attended by instantaneous relief, and partial subsidence of the tumour in the hypogastrium. On the evening of this day the urine came away naturally to a considerable amount. A gum elastic catheter was introduced into the bladder, and maintained there.

28. To-day Mr. WHITE experienced some difficulty in passing the catheter, and considerable hemorrhage was in consequence excited, and the patient was for some time in a state of extreme faintness and prostration.

30. The patient was much blanched by the loss of blood. To-day he is recovering his colour a little. His pulse is 90; soft and regular. Bowels open; the urine flows entirely through the urethra; none is traceable in the wound. He has low diet and beef-tea.

Oct. 1. He has had a tranquil night. This morning he had a good deal of uneasiness in the hypogastrium and pain in the wound. The catheter is consequently removed, and replaced by another. The pulse is quickened.

10. Much better. A little urine dribbles through the wound; but the greater part is expelled, by the patient's own efforts through the natural channel.

GUY'S HOSPITAL.

OBSTINATE ADHESION OF THE LABIÆ.

MARY LOMNARD, ætat. 18, lately admitted, under the care of Mr. CALLAWAY. It appears that she has had an agglutination of the labiæ from childhood, there being only a very small opening in that neighbourhood, which seems to be a very vexatious circumstance to the young lady. The aperture has always admitted the free escape of the urine. Eight years since she said that she was "*under Sir Astley Cooper*," who divided the parts effectually, though not so permanently as might have been expected, for a cicatrix formed, and she therefore (four years ago) again had it divided, and on that occasion by Mr. GOSSETT. There is at present an opening, which permits of the escape of the catamenia and urine, and which, indeed, Mr. CALLAWAY thought "sufficient for all *useful purposes*;" but in order to satisfy the girl's apprehensions, the cica-

trix was to be again divided. How came the cicatrices, under good subsequent treatment, to have formed? We were of too delicate a frame of mind to question the damsel on the subject, though the inquiry was one of interest; and probably the performance of one of the great social ordinances of life will be resorted to, to prevent the third recurrence of the malformation.

DEATH OF WILLIAM ROBERTS IN THE LONDON HOSPITAL.

Note from MR. HAMILTON, *the Assistant-Surgeon.*

To the Editor of THE LANCET.

SIR,—May I request you, in answer to the letter signed "Mary Roberts" in your last No., to insert the following contradiction from the examination of witnesses, relative to the case of W. Roberts, a patient deceased, which took place at the London Hospital on Sept. 19th ult.

Mrs. Roberts, widow, says, "That deceased on Saturday, Aug 31, said he was as well as ever he was in his life in general health."

Fordham, a friend of deceased, says, "Saw him on Saturday, Aug. 31; thought he was doing pretty well. Saw him on Sunday, Sept. 1; was in tolerable good spirits; made no complaint on either visit." This was the last day of Mr. Hamilton's attendance. Fordham saw him again on Tuesday, Sept, 3, "and noticed a strange alteration."

The notes of the case delivered in by Mr. Yeoman, Mr. Andrews' dresser, and now deposited with the Committee, show that I attended on W. Roberts not merely daily, but frequently twice a-day, and that he was improving up to the last moment of my attendance, and only became worse on the following day in consequence erysipelas coming on,—that the patient never was on "full diet," and that the first alteration made by Mr. Andrews was to order half a pint of wine daily, and beef-tea instead of middle diet. Your obedient servant,

ALFRED HAMILTON.

Broad-street Buildings,
Nov. 26, 1833.

THE MEGALONIX.

[We had extracted the following interesting remarks of Sir CHARLES BELL on the dissertations of CUVIER and JEFFERSON on the Megalonix from Sir Charles's Treatise on the Hand, but could not find room for them in the Number of THE LANCET in which we reviewed that work. We now, however, give them a place in our pages. They afford a fuller account of the discussion than the Professor was enabled to give in his late lecture.]

"The canine tribe are carnivorous, like the feline, and both have the last bones of their toes armed with a nail or claw. But their habits and their means of obtaining food are different. The first combine a keen sense of smelling with a power of continued speed; they run down their prey. The feline order have their superiority in the fineness of their sight, accompanied with a patience, watchfulness, and stealthy movement; they spring upon their prey, and never long pursue it. They attain their object in a few bounds, and failing, sulkily resume their watch. When we look to the claws, we see a correspondence with those habits. The claws of the dog and wolf are coarse and strong, and bear the pressure and friction incident to a long chase. They are calculated to sustain and protect the foot. But the tiger leaps upon his prey, and fastens his sharp and crooked claws into the flesh. These claws being curved and sharp, we must admire the mechanism by which they are preserved. The last bone, that which supports the claw, is placed lateral to the penultimate bone, and is so articulated with it, that an elastic ligament draws it back, and raises the sharp extremity of the claw upwards. The nearer extremity of the furthest bone presses the ground in the ordinary running of the animal, whilst the claw is thus retracted into a sheath. But when the tiger makes his spring, the claws are uncased by the action of the flexor tendons; and they are so sharp and strong in the Bengal tiger, and his arm is so powerful, that they have been known to fracture a man's skull by a touch in the act of leaping over him.

"President JEFFERSON having found a bone, which, by its articulating surface, and general form, he recognised to be one of the bones of the phalanx of an animal of great size, he thought he could discover that it had carried a claw; and from this circumstance, he naturally enough concluded (according to the adage ex unque leonem) that it must have belonged to a carnivorous animal. He next set about calculating the length of this claw, and estimating the size of the animal. He satisfied himself that in this bone, a relic of the ancient world he had obtained a proof of the existence, during these old times, of a lion of the height of the largest ox, and an opponent fit to cope with the mastodon. But when this bone came under the

scrutiny of Baron Cuvier, his perfect knowledge of anatomy enabled him to draw a different conclusion.

"He first observed, that there was a spine in the middle of the articulating surface of the last bone, which in this respect was unlike the form of the same bone in the feline tribe. He found no provision in this specimen of an extinct animal, for the lateral attachment of the bone which we have just noticed to be necessary for its retraction. Then observing what portion of a circle this bone formed, he prolonged the line, and showed that the claw belonging to it must have been of such great length, that it could never have been retracted to the effect of guarding an acute and sharp point. The point, therefore, could not have been raised vertically, so as to have permitted the animal to put the foot to the ground without blunting the instrument. Pursuing such a comparison, he rejected the idea of the bone belonging to the feline tribe at all. His attention was directed to another order, the paresseux or sloths, which have great toes and long nails. Their nails are folded up in a different fashion; they just enable the animal to walk, but slowly and awkwardly, something in the same manner as if we were to fold our fingers in the palm of the hand, and bear upon our knuckles. On instituting a more just comparison between these bones of the animal and the corresponding bones of the paresseux, he has satisfied us that the lion of the American President was an animal which scratched the ground and fed on roots."

CORRESPONDENTS.

After the contradiction which was published in last week's LANCET, the insertion of the note of *Owen Reardon* would be unsatisfactory to every person who feels an interest in the subject, unless it were accompained by a note from the governor himself. It has now become a question of fact, and the testimony of disinterested witnesses is demanded.

Medicus.—The pamphlet of Dr. Tytler is published by Messrs. Renshaw and Rush, of the Strand, but it may be obtained of any bookseller. The facts detailed in it are not only curious, but exceedingly important, and we shall extract some portions of it next week. But the publication itself ought to be read by every medical practitioner.

B. I. C.—The indenture, or an attestation, in proof that the apprenticeship was served as stated, must be produced at the Hall; and in justice to the Company we may here state, and we make the acknowledgment with pleasure, that the Court of Examiners have, in several instances, shown great liberality with respect to the apprenticeship clause of the Act. In cases of accident and dispute we know, that, in a great many instances, they have liberally refrained from enforcing the production of the indentures, and have required only the attestation of a comparatively informal certificate of servitude. If a license to practise be obtained by a fraud, it is bad in law, and, consequently, cannot be sustained. The offending party, in such a case, besides being unentitled to practise, might be prosecuted by the Company, for obtaining his license through the instrumentality of fraud.

The professional character of *Mr. Courtney* does not require the aid of the press. As the transaction has not been the subject of a judicial investigation in any form, it would be libellous to publish anything which was calculated to injure the professional character of Mr. ———, he being a private practitioner, and the entire affair having occurred in private. The truth, in this case, would be no "justification." Mr. C. has much cause to complain of the treatment he experienced. Retributive justice, however, indicates, that the injury, if any, will prove but of brief duration.

Can any of our correspondents furnish us with the address of Mr. Murray, who was lately engaged in business as a chemist and druggist, at the corner of Orchard-street, Oxford-street?

A Borough Student.—Without intending in the slightest degree to disparage the merits of any of the private teachers in the Borough, we can recommend Mr. W. MEADE as a private lecturer, in whose talents, integrity, and unwearied assiduity, every medical student may place the fullest reliance.

The report of the meeting of the London Hospital Medical Society is excluded this week from want of room.

X. Y. Z. will find a cure in calmness of mind. No doubt the complaint is imaginary.

We have rendered it unnecessary to publish the letter respecting the French medical constitution by our article of this week. We are well acquainted with its "workings," but shall always be glad to hear from our correspondent. As to the lectures, he is certainly wrong.

The letter of *A Guy's Student* positively next week.

Dr. Alexander's paper on *Vermination* shall, if possible, have a place in our next No.

The excellent paper of *Dr. Negri* shall appear in our pages.

Communications received from V.—A Mem. of the R. C. S. of Ed., in Ireland.—Dr. M'Cabe.—Mr. Parkinson.—E.—A Subscriber, Glasgow.—Mr. Thornbury.—Delta.—An A. Apprentice.—Mr. Thompson, &c.